

STREET-IFY THE RIVERBED

A revitalization strategy for the Western Residential Neighborhoods
of Limassol, Cyprus



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Streetify The Riverbed

*A revitalization strategy for the Western Residential
Neighborhoods in Limassol, Cyprus*

Master's Diploma Research Project

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0.ABSTRACT

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0.1 STATEMENT

This thesis investigates the street as the strategic location for socioeconomic interaction in the contemporary city, one that incorporates courtyard housing models and concentrated food production to generate productive, community-oriented residential neighborhoods. The street, treated as part of the city's public realm in conjunction with new public spaces like squares and parks, becomes the key actor in shaping, reprogramming and revitalizing the existing architecture that surrounds it.

0.2 ABSTRACT

The aim of this thesis is to revitalize the western neighbourhoods of Limassol by transforming the mono-functional Garillis riverbed into a multifunctional pedestrian friendly streetscape and series of public spaces, public buildings and dwellings that are physically, socially and functionally connected with the surrounding urban fabric.

The thesis challenges the current development trends of Limassol, which limit the public urban life and provides an urban design proposal in which street and its public spaces generate an active public realm and revitalize its existing surrounding context by offering opportunities for developments that generate social interaction, economic exchange and employment while also reducing the area's car - dependency .The concept of street and public space merge together in order to create a platform for multiple uses and users.

The site of the river Garillis, has been functioning as a rain water management infrastructure, preventing the occasional flood of the city.While currently this function is maintained, few plots along this river are used for agricultural purposes. However, its state has deteriorated by becoming a hidden garbage site, behind the existing urban fabric, invisible to the public.

Over the years, like the river Garillis, the western part of Limassol brings out an image of negligence and disconnection from the city's public realm. Human activity is minimal with no places for people to meet or interact in close proximity to their place of residence. Most people rely on their private vehicle to conduct their daily activities or seek leisure and interaction with other people in the small area of the old town centre. The private vehicles are currently the only efficient means to move within the city. Greener transportation modes have not yet been developed.The few pedestrian and bike routes have primarily a leisure character.Public transport is inefficient due to the sparse "suburban like" built fabric where disconnected built structures, private housing and garages rarely permit the concentration of people and programs outside the old town centre.Traffic, noise and air pollution are some of the common problems that affect both the urban and the natural environment.

The current urban policies for development of Limassol are limited to addressing only zoning and use (functions). Building requirements tend to be vehicle oriented, where access

and parking of vehicles is the primary concern.A mixture of programmes and human activity do not develop on the street level since the built form is fragmented and open space privileges vehicle use.With no variety of different uses, the western neighbourhoods are lacking public life with no places to meet or interact with other people.The sense of community and the concerns on the urban "commons" are almost non-existent.

Therefore, the urban design proposal is developing a masterplan for transforming the current riverbed into affordable housing, public buildings and urban public spaces like parks, squares and streets that generate activity nodes which will benefit also its surrounding context.These activity nodes and their mixed uses, aim in concentrating enough people through a dense spatial configuration of the built fabric, to develop also alternative transportation hubs by linking the existing road network. It is a strategy to improve the socioeconomic and cultural agenda of those neighbourhoods by suggesting spaces for recreation, sports, commerce, co-working environments, research & educational hubs and culture.Through active participation of the people in the urban commons and concerns, this proposal aims in forming communities with a sense of identity which should see an increase by introducing urban farming schemes and community gardens.

The proposal suggests a grand scale intervention and transformation of the existing situation which requires to be made through different phases of development. By providing a flexible framework, the development of the neighbourhoods can be readjusted to the current needs and demands of that time period.This is a scheme which requires active participation from local authorities, a combination of private and public investments, but most importantly the input of the existing inhabitants in the area in design and development decisions.

While the proposal addresses a specific context and some specific issues, this strategy hopes in becoming flexible to be implemented in other areas for development. Its principles rely in transforming streets to usable public spaces by variety of users and able to adjust in the changing needs of the society.

I. RESEARCH



Figure 01. Sidewalk in Limassol old town - A space to sit, interact and observe the public ,
photo courtesy : Sergey Galyonkin - flickr.com, accessed 30 March 2018

1.1 INTRODUCTION

Streets are one of the most important urban spaces of a city since they are key contributors to the city's public realm. Their primary use is to connect and provide access for people to mobilize and navigate within the city. Before the advancements of technology that brought private vehicles to the urban scene, streets were also platforms for various activities in addition to their primary purpose, and equally important.

The importance of those activities that streets used to host in their spaces, have only been realized after an overwhelming number of private vehicles took over the urban environment. The affordability for someone to purchase a car but also the ongoing need of traveling larger distances between places has limited the streets to the function of transport, often limiting their socioeconomic development.

Today, more cities undergo redevelopment schemes, which aim in shaping urban spaces that are more inviting for people. Reshaping the streets in to people friendly urban environments demonstrate increase in benefits in the city's economy, society but also its environment by restricting the inflow of private vehicles. Furthermore, streets allow the city and the people to organize happenings and events, both planned and unplanned, which become subject for the area's cultural development. Cities that provide urban spaces as such, demonstrate improvements in people's living standards by providing them options in culture, leisure and recreation, in a people oriented urban environment.

However, these spatial improvements are not seen in many parts of the cities. Many residential areas, especially those which have been built during the past century, seem to

be lacking these qualities in their streets. The street is often treated as the leftover space dedicated for transport of vehicles. Revitalization schemes in residential areas outside the inner city are minimal compared to the effort put for the central commercial centre.

The challenge for areas as such, is to identify why streets are incapable to develop some form of urban activity and then, decide which activities are contextually appropriate for these public spaces. What is the physical relationship of the built environment with public life and which form should it take in order to improve the general quality of a residential neighbourhood?

Once the framework is set, this research looks into the idea of the street and how various scholars identify this urban space as a key element for a city's liveability. This will form the basis of the research agenda in order to create a strategy that is appropriate to the local context of intervention and generate an urban design proposal, which reflects on these ideologies.

1.2 DEFINITIONS OF PUBLIC SPACE

What makes the street a public space? Before answering this question, perhaps it is better to give some form of definition of public space since the spectrum can become very wide.

Landscape architect, Hellen Woolley quotes Walzer (1986), who describes public space as :

a space which is shared with strangers, people who are not relatives, friends or work associates. It is a space for politics, religion, commerce, sports; space for peaceful coexistence and impersonal encounter. Its character expresses and also conditions the public life, civic culture, everyday discourse.

However, this definition can be argued to be mostly true for large cities. In a town or village, personal encounters with family, friends or coworkers may be much more frequent. A different approach, as she describes, is to define it by the legal ownership of the physical space. The public space is the space which does not belong to an individual or a business, but rather belongs to the city. Though, it is often the case that the level of publicness may vary depending on people's perception. For example, a space might be legally owned by the city, but is used only by a certain group of people.

Urban Designer, Ali Madanipour describes public space as the urban space which is provided by the state and used by all members of society. Public in his description is defined by access, agency and interest. Access, is regarded as a term for a space which everybody is allowed to use and be present but also, access to activities and resources. Agencies, public

or private, as well as interests play major role in public affairs and in the distinction of public and private realm.

Gehl in his book "Life Between Buildings", on the other hand approaches public space, as the space between the physical form of cities, that carry outdoor activities of people and events

The definition of public space can be complex and vary depending on which approach someone takes to define it. However, for the purpose of this research, public space shall be considered as:

the multifunctional outdoor space between the built fabric, which is provided by the city, for people to use and carry their daily, planned or unplanned activities in a varying scale of publicness and privacy.

References

Ali Madanipour, *Public and Private Spaces of a City*, 2003, Routledge London

Helen Woolley, *Urban Open Spaces*, 2003, Spon Press, London

Jahn Gehl, *Life Between Buildings*, 2011, Island Press, Washington DC

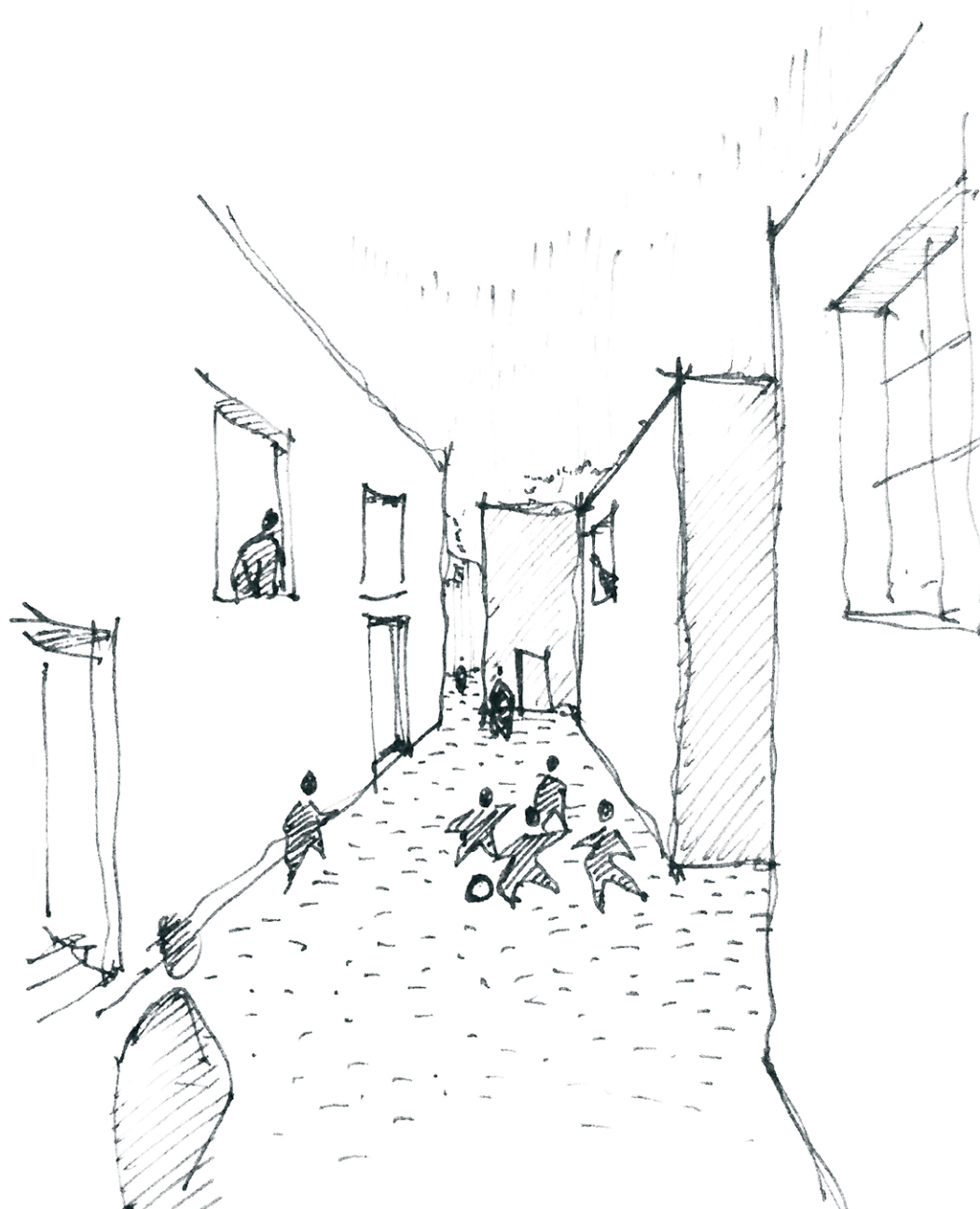


Figure 02. Public Space - Street is an urban space for children play, observation and walking, Photo courtesy: Author

1.3 STREET AS PUBLIC SPACE

There is a general misconception where streets are regarded only as the urban space intended for transportation purposes. However, streets in reality are used in different ways in addition to their primary purpose of connecting places. Different groups of people perceive streets in a different manner. Children for example, often use them as a place to meet and play. Activists and protesters use streets as platforms for demonstration and marching. Others simply use them to have a walk or just take some fresh air, outside their homes. Streets are in most cases, public, open (air) spaces which are for everyone and can be used by everyone

Urban designer Jan Gehl and Lars Gemzoe, state that public spaces and streets, have three basic functions in general. These are the function of transport, of market and economic exchange and last, meeting between people. While these functions may be considered somehow too general and abstract, they suit to form a basis to generate an overview of the possibilities which streets may be used as and transform into.

When we think of an urban space that has a market, usually the first which comes to people's minds is the square. However it tends to be an occasional event in most cases. Streets on the other hand, on a more permanent basis are also spaces for economic exchange. Shops, retail and markets are formed along the streets to sell and buy goods. Even various building typologies have been developed through centuries which display their goods and attract people into their doorstep to buy goods. Bazaars and market halls are in their essence, streets under a roof, with little shops and various goods to sell, based on people's daily needs.

Shopping streets is a different type of market, exposed to the open air. Ground floor shops open views of their facade to the street, so people can see inside what is on offer. They are often decorated with window displays to make them more attractive and lure in the passers-by. Shopping streets or High streets are still present today in the cities, inviting people to buy goods while walking along the outdoor urban space

The function of economic activity and transport, create opportunities for social encounters. They are urban spaces for meeting people, planned or unplanned, with familiar and unfamiliar faces. Street is the public space where people can observe and be observed by others. They interact, meet friends, have a walk or simply show presence in an environment where people receive and exchange information outside of their private realm (Gehl & Gemzoe, 2000).

These three basic functions are still quite identifiable in the present day. Many cities have already redeveloped their urban centres into more inviting spaces, seeing the increase in socioeconomic benefits. Additionally, this approach gives a greener image to the city in a period where environmental issues become a major concern.

Cities have gradually limited the accessibility of private automobiles in their urban cores. It has been counterbalanced with light transport like walking and biking. Public transportation has become more necessary and therefore, an efficient alternative, in order to move people from their living area to their work or leisure area and back.

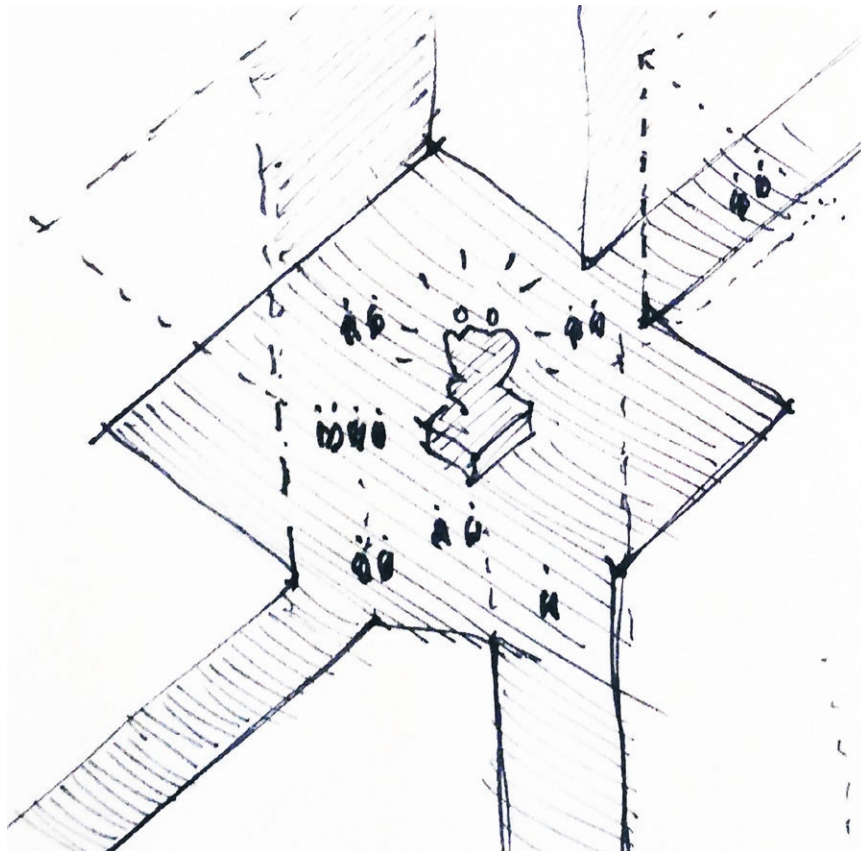


Figure 03. Public Space revealing its "monumentality". Users are the spectators of the play.
Photo courtesy : Author

The revitalization of public spaces in the centre and reshaping the streets into more pedestrian friendly urban environments has evidently brought life back to an area which few decades ago, people wanted to get further away from. Re-appropriated streets that are used by people are the places where the action is.

“Street is where the action is”, Rudofsky states. He beautifully describes how streets used to be for centuries, the great theatres of the world (Rudofsky, 1982). Drama comedy, happy and sad events, people’s daily lives in the streets, create this urban performance by people, and the urban spaces behave as theatre stages.

Similarities of street, or public space in general, and the concept of theatre, are also described by Ali Madanipour. There are two types of public spaces as he describes.

The first is the one where the performance and the stage (urban space) are separated by the audience. The people become the observers. Madanipour correlates this type with the public space that tries to be monumental and reveal something. It could be a church, a statue, a particular façade of a building, but the main purpose is revealing a visual experience to the observing people.

The second type is the one where the audience is an active participator in the theatrical play. It is a play which interacts with the audience, the actors and the stage, generating unplanned and unexpected experiences. In a similar way, public spaces where people expose themselves to whichever might be happening, become the stages where people have the possibility to interact with other people and activities.

As A. Madanipour points out, performances as such are happening in a flexible setting. Public space should be neutral and flexible for various activities or performances to happen, whatever the relationship with the audience might result into. If this is not the case, the space becomes subject under controls and restrictions, which come to question the publicness of that space.

To conclude, streets should be flexible to accommodate the various events and activities.

As an urban space which contributes to the city’s public realm, they should be flexible enough to carry the three basic functions of transporting, consuming and meeting other people. The level of intensity between these function is changing depending on location and the current needs of its users during different times. Streets should be able to cope with these changes and provide a platform for these performances to occur whichever their nature might be to be considered as public space.

References

Ali Madanipour, Public and Private Spaces of a City, 2003, Routledge London

Jahn Gehl, Lars Gemzoe, New City Spaces, The Danish Architecture Press, 2000, Copenhagen



Figure 04. Over-crowded commercial street. Meeting and walking in these settings often become undesirable. Source: telegraph.co.uk, image courtesy: REX FEATURES, accessed 30 March 2018

1.4 BALANCED STREETS

When the street is studied as a public space which holds the basic functions of transport, market and meeting, becomes interesting to observe what the outcome is when one of them is stronger than the others.

Traffic domination is usually the case to many of the streets, if not most. Cities which are dependant from vehicles, J.Gehl refers as the invaded city. However, this term can be used for the other two functions depending how it is being perceived. For example, it is seen that many urban centres that reduced vehicle traffic, have their open spaces (both streets and squares) rather dominated by the other two functions. They tend to be intensely commercialized with offices, shops, restaurants and other types of consumer oriented functions in the buildings enclosing them. Certain time periods during the day or the weekends, urban open spaces become overcrowded and often chaotic with people walking to work, shop or tourists walking around. The liberation of public spaces from traffic has in many cases, given space for over-commercialization in the adjacent buildings.

This touches much bigger, global even, urban and economic concerns that are outside of this thesis spectrum. However, they are worth to be mentioned briefly, since the impact is visible in the urban spaces of the city. London Architect H. Hinsley justifies the phenomenon over-commercialization by the shift from production based economies to consumption based economies.

He uses London as an example where under the “free market” ideologies of the 80's, the city saw a rapid transformation with large scale office developments through a “fast-track” scheme. This basically liberated urban planning restrictions and gave bigger freedom to designing large scale developments. The pressure of this scheme made difficult for local government to assess the possible impacts that these large developments had. As in the case of London, other cities similarly see these type of developments positively as a measure of sustainable growth. However, the measure of growth considers only certain forms of economic activity, while infrastructure and social resources are on the downside of these developments.

The commercial demand for space in a square, pedestrian street, or any urban space that invites people, has resulted in increase of the asking price in the real estate market, pushing out people who used to live there. Housing in areas as such is almost inexistent or limited to a small group of economically wealthier people. It is no wonder, urban centres, at least in European cities, are filled with coffee shops, restaurants, retail and offices. The mono-functional character of an area in terms of its building uses has a direct impact in the public life happening in streets as well. Areas with only leisure and commerce facilities often tend to be overcrowded. Areas which have none in their close proximity tend to be too quiet and invite domination of vehicles and sometimes even criminal activity.

Therefore, areas of the city should include varieties of functions. Different streets should be flexible to host different types of activity. Some might have intense commercial and leisure oriented activities with big numbers of people but some should also provide escape to a more quiet setting within close access. It is important that streets and public spaces, to be balanced but also diverse when it comes to what activities and functions the area has to offer.

References

Gert de Roo & Ronald Miller, *Compact cities and Sustainable Urban Development*, 2000, Hampshire, England / Essay by H.Hinsley, *Sustainable inner city renewal*, p.91, Jahn Gehl, Lars Gemzoe, *New City Spaces*, The Danish Architecture Press, 2000, Copenhagen

1.5 A STREET WITH OPTIONS

The public spaces and the streets of an area, in order to be attractive for people, need to exist in a diverse environment. A neighbourhood or a district should include have the basic functions in their urban spaces balanced in such a way, that people can have options to choose from urban environments that suits their needs and their personal preferences. This is also one of the key characteristics and essential qualities of urban environments. To be diverse and provide options suitable to various individuals. Diversity therefore becomes a key element for generating vibrant urban spaces.

Jane Jacobs points how diversity is absolutely necessary to have active streets and urban spaces and it should be dealt with on a district level. She mentions four key points which need to coexist, and as she points out, all four need to be present to some extent in order to achieve diversity.

Firstly, diversity can be achieved through mixed uses in buildings. This allows urban spaces to become active in different time-periods throughout the day. For example, a business district, which has only office buildings, will inevitably be deserted after working hours. Inactive streets tend to be more vulnerable to criminal activity, therefore by introducing mixed uses becomes a measure to prevent this from happening.

The following points deals mainly with the built form that shape a district like small

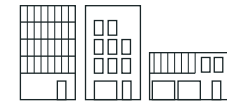
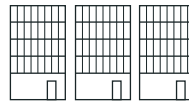
city blocks and variations in age and appearance. Smaller city blocks allow more streets to connect between them, which translates into more people crossing their paths. Long and big city blocks tend to have “pools of activity” only at their very ends but people need greater effort to reach those intersections. By reducing the scale of the blocks, they increase the building corners, making it possible to develop functions like shops, cafes, restaurants etc., making visual connections with 2 streets. In general, small city blocks and frequent streets between them encourage cross uses to happen in their frequent intersections.

Buildings varying in age, in addition to the visual diversity that gives to a street or public space, they also invite people with different economic backgrounds to move in. Buildings with different age have different value in the market; therefore diversity is generated also by the variation of the inhabitants.

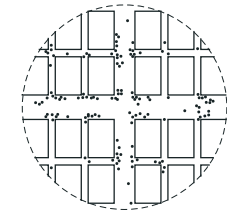
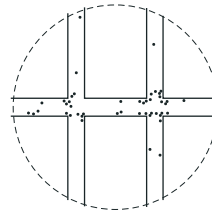
Last, none of the points above can exist if the following is missing, which is density. The large number of people concentrated in a small area is what generates what urban activity should be considered. Mixed use buildings can't exist if there is no sufficient amount of people to create them. Neither do small-scale building blocks of different age matter if there is nobody to house them.

DIVERSITY

MIXED USE

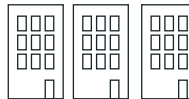


SMALL URBAN BLOCKS

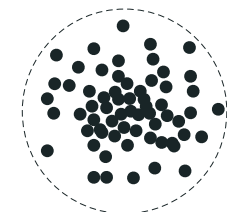
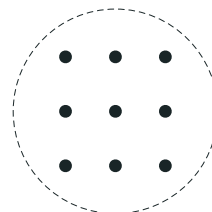


VS

AGE VARIETY



DENSITY



This proves the point where the balance of the basic functions plays an important role. Jacobs points out that a large concentration of people in a specified area need also an effective way to access it. By eliminating entirely the access of automobiles (the most used transportation method for many cities) may result in desertification of that space. If the basic function of transporting people around becomes an inconvenience to access places, there is a great possibility for none of the other two functions to develop either. Ease of access should not be disregarded in the effort to create pleasant public spaces.

Once these points are taken into consideration and understanding how everything is interconnected and how all need to be present, they become the basis for generating a diverse urban environment. Being able to access different options is what makes city life so attractive to many. Options to live, options to move around, options to work and buy and generally options to urban activities define city life.

In environments as such, J. Gehl comes to identify three different categories of a person's

daily life activities: the necessary, the optional and the social. The optional and the social are the ones more interesting to observe as they are results of urban environments which are diverse.

Optional are the activities which people will pursue by their own will. Take a different route from home to work, have an afternoon walk, sit in a park etc. The physical environment plays an important role as people choose to act in an environment which for them seems more pleasant.

Social activities require the presence of at least more than one person. Streets and public spaces are the platforms for these activities if people are present. These activities are the active or passive interactions with other people, planned or unplanned meetings and observation of familiar or unfamiliar faces. Both optional and necessary activities can lead up to some social interaction in a space where other people are present.

References

Gert de Roo & Ronald Miller, *Compact cities and Sustainable Urban Development*, 2000, Hampshire, England / Essay by H. Hinsley, *Sustainable inner city renewal*, p.91, Jahn Gehl, Lars Gemzoe, *New City Spaces*, The Danish Architecture Press, 2000, Copenhagen

1.6 PRODUCTIVE STREETS

The street, among the functions already mentioned, provides a good setting to become a productive element of the city. Its physical characteristics in terms of scale and shape could be implemented to create a Continuous Productive Urban Landscape.

CPLU's is an urban strategy to reshape urban spaces of the city into "green" urban landscapes which can be productive economically, socially and environmentally (Katrin Bohn & Andre Viljoen)

The idea pursued in this strategy is to intervene and re-appropriate existing urban spaces. Therefore, different parts of the city can remain well connected but in a pedestrian-bicycle friendly environment through functions like urban forests, parks and agricultural plots.

In the city scale, this strategy creates a green lung, improving the air quality of the city but also the health of the people themselves. The concrete landscape of cities creates green belts which bring nature into the city.

In the community level, CPLU's can become platforms for growing food and feeding people living in that community. In an era which most people live by the convenience of supermarkets and mass produced food, growing their own food allows an ecologically sustainable approach, which is organic and seasonal.

Understanding how food is grown, becomes a method to reduce waste since people

realize the effort required through its various stages of production.

Therefore, CPLU's become instruments for educating people. Schools, students, research scientists could use CPLUs to learn and educate others and possibly promote the benefits of such strategies. The possibilities of research and experimentation can be endless in a period where many places in the world are in need for food production solutions and new ideas.

This strategy however should not be compared with the mass, cheap production of food in terms of economics. No community or city should approach this strategy as a method to become wealthy. It is a lifestyle which balances the ideas of production and consumption while making people more conscious in their consumption decisions and keeping them in various forms of occupation for its maintenance.

Educational systems, seminars and lectures could become means to provide some form of employment to unemployed citizens while being able to sustain themselves by growing food of their own.

The economic benefits of CPLU's can extend to ideas like weekly food markets, shops, other by-products and direct collaborations with restaurants or businesses that want to encourage local organic food production.

Activities like these create social and economic interactions with people both within the community but also from other areas of the city. The relationship between the people in these communities, grow stronger and makes the community an active participator in the urban commons and concerns. It is a platform which invited people from different backgrounds to come together and exchange skills and knowledge.

CPLU's have their community gardens usually run by a locally formed group of people, often run in partnership with the local authorities. It often involves plenty of volunteering work and all groups of people are welcome to get involved (Jeremy Iles). This creates a sense of pride and identification within the local community which encourages people to engage more actively with the public affairs.

2. CONTEXT



Figure 05. Location of Cyprus, a crossroad between three continents

2.0 CONTEXT

Limassol and Cyprus in general, has seen dramatic changes the past few decades with new large scale developments emerging on a yearly basis. However, these developments show little interest for the city's commons and public realm. The streets of Limassol have been overtaken by private vehicles and public spaces are restricted in the pedestrian friendly old town centre. Current and future developments, take the form of private investments for luxury work, living and leisure. Marinas, high-rise residential and office towers, casinos and other similar types of development, benefit the city economically in the short term, however their social and economic contribution in the long term should be questioned.

Modern Limassol, in its efforts to become an inviting and sustainable city for its citizens, seems to follow development schemes which contradict this long term purpose. Despite the long history of the island and its various influences, it is only recently this city has seen such dramatic changes.

In a period where creating socially, economically sustainable and greener living environments become key elements for new developments, the actions are quite minimal to achieve this purpose. The interest in the commons and the public realm in areas where the majority of the population lives is little or inexistent.

It is interesting to observe the reasons this is happening and how it came to be in its current state. In order to provide a solution for the urban issues, it is critical to understand its context both through its historical development and its current state

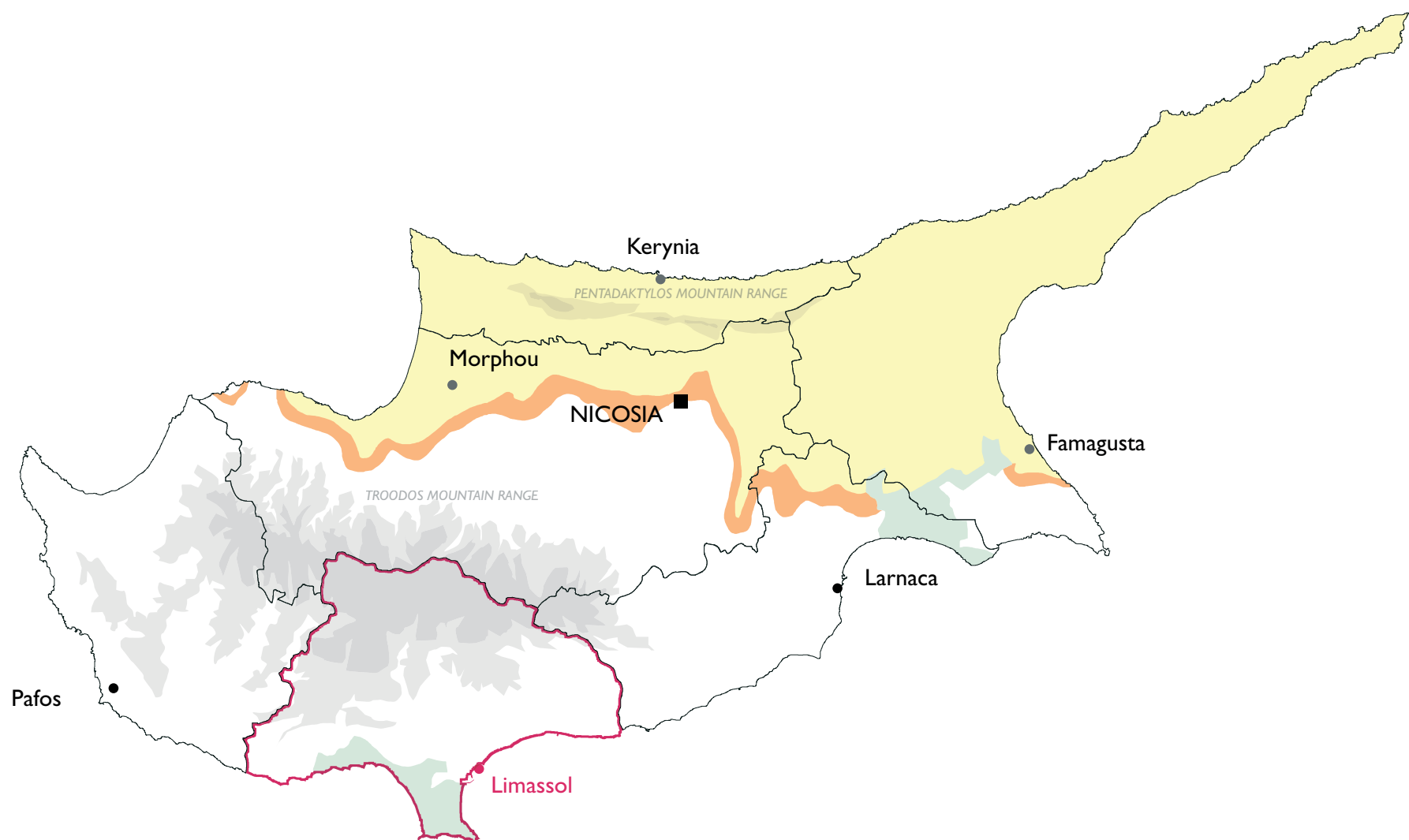
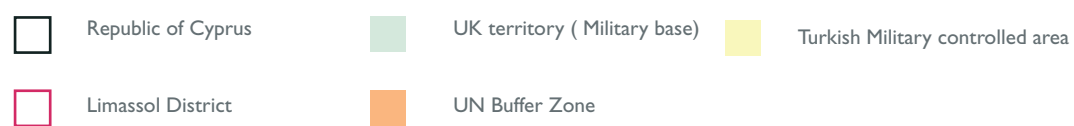


Figure 06. Administrative borders of Districts and Cities



2.1 GENERAL INFROMATION

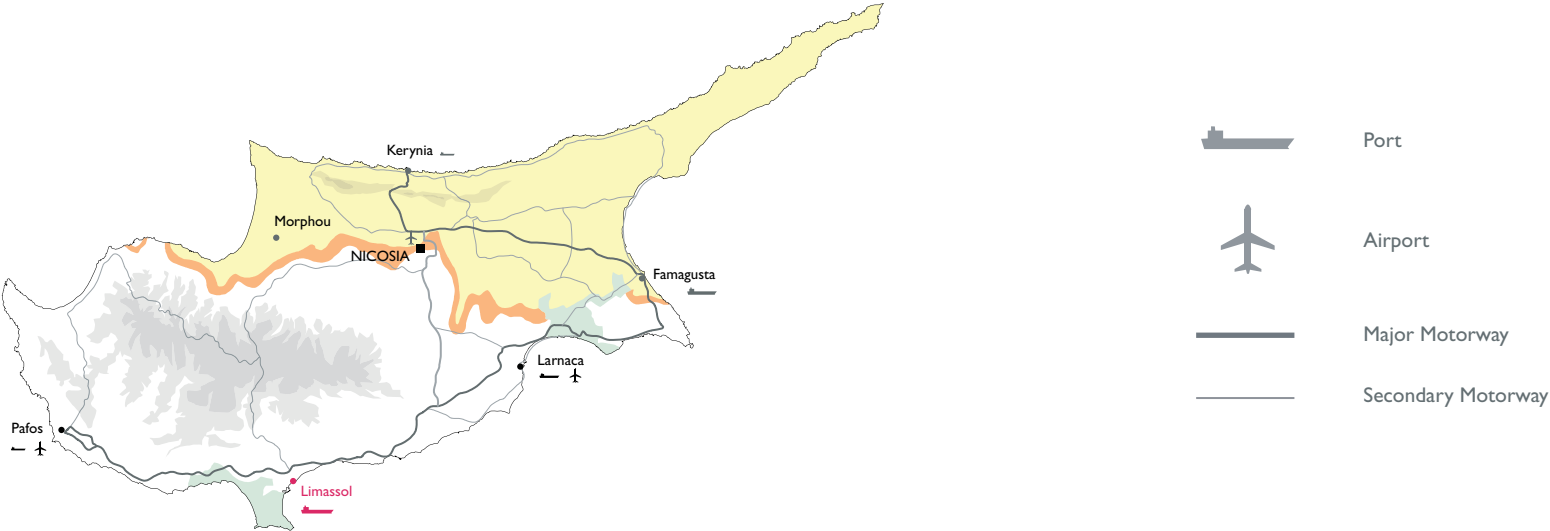


Figure 07. Transport infrastructure

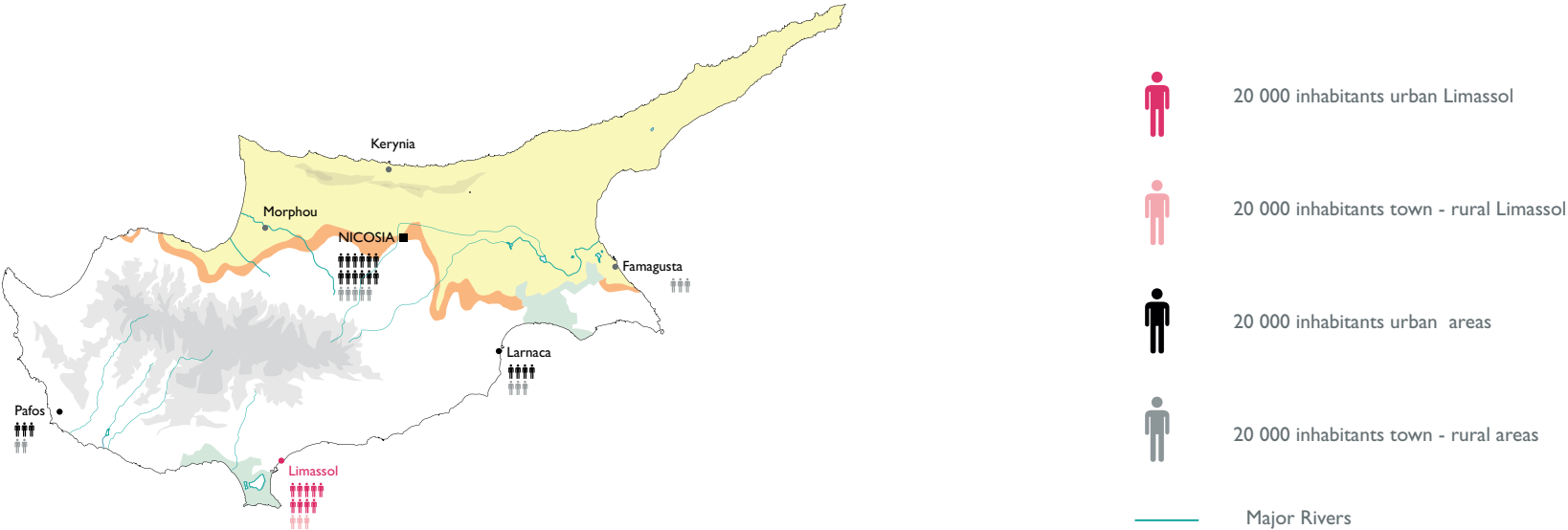


Figure 08. Population by District, source: Cyprus statistical authority

Limassol is the second largest city in Cyprus after the capital, Nicosia. It is the southernmost city of the Republic of Cyprus and the second biggest city in terms of population of about 183 000 citizens in its urban area.

Sources:

-Demographic report 2016 estimation p.57, Statistical Service of Cyprus, Republic of Cyprus 2017

-<http://www.limassol.climateemps.com/>, retrieved 12.01.2018

The climate is mediterranean/ subtropical, ranging on 26 degrees celsius on average during summer, and 17 degrees celsius during winter months. Summers are hot and dry, where winters are quite moderate with an average precipitation of 457 mm per year.

2.2 HISTORICAL BACKGROUND



Figure 09. Painting of the Limassol skyline, photo courtesy: limassolmunicipal.com.cy

The small town of Limassol was known in the past also by different names, like Neapolis and Nemesos, the name which today's greek name Lemesos derives from.

Middle Ages

Limassol gained a wider reputation due to the conquering events of 1191 AD, where the British rule under King Richard the Lionheart, has taken over the island and terminated the Byzantine rule. The city since then, has seen plentiful of conquerors. Among them, the French (Frankish as they were called back in the middle ages), the Venetians and the Ottoman Empire to which they remained in rule for hundreds of years.

Limassol used to be a small town, often characterized as a village. The town was spread along the coast with badly built flat roof buildings and three churches visible in its skyline. Limassol, was not fortified like the other, wealthier cities in Cyprus, Nicosia and Famagusta. The Venetians intended to conduct fortification works to protect it from the Ottomans but never came to be realized.

During the rule of Ottoman empire, Limassol and Cyprus in general did not see great prosperity and the taxation by the Ottoman empire devastated the local citizens economically. It was only after the island was sold to the British Empire in 1878 when the British modernized the island.



Figure 10. Frankish Map of Limassol, Unrealized fortifications, photo courtesy: limassolmunicipal.com.cy



Figure 11. The District Administration Building built during the British rule in 1924, Colonial style. First was used as a hospital. source: allaboutlimassol.com, Jan 10th 2018

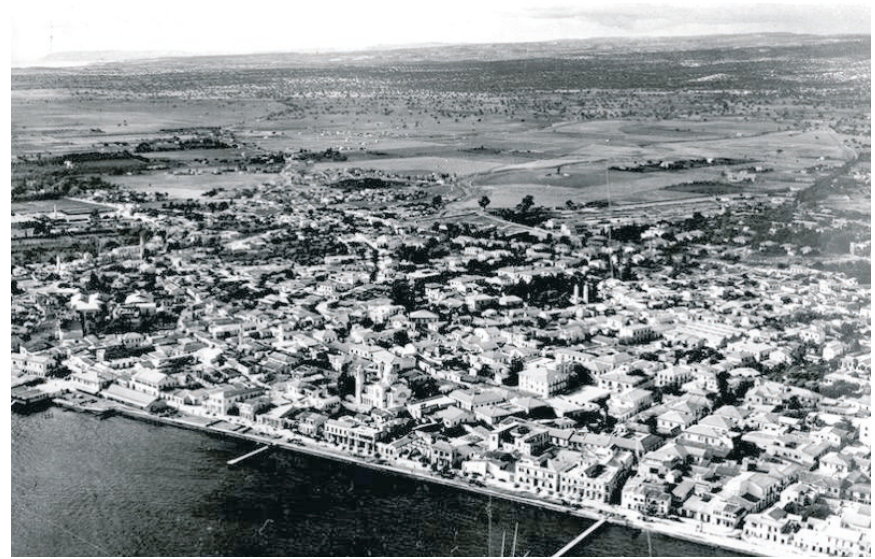


Figure 12. Old town Limassol, source: allaboutlimassol.com, Jan 10th 2018

The British Empire rule and the Turkish invasion

The town of Limassol saw development throughout the British influence and the advances of technology they brought with them. They introduced infrastructure and administrative systems to run the country more efficiently.

People started to migrate from the villages in the mountains and settled in Limassol since the city offered better employment opportunities and living standards. In 1881 the town had about 6000 inhabitants and within two decades it increased to over 10 000

inhabitants, which was a significant number considering the conditions of that period.

The British rule lasted over a century before the majority of the population of Greek Speaking Cypriots sought to gain their independence. In a period where the British Empire struggled to keep its colonies under control, Cyprus fought against the British rule and declared its independence in 1st of October in 1960 under the Zurich-London convention.

Socio-political tensions between the greek cypriot and turkish cypriot communities the following years, resulted in the invasion and occupation of one third of the island by Turkey in 1974, still under the Turkish Military control today.



Figure 13. Seafront of Limassol Photo Courtesy: www.limassolmunicipal.com.cy/foto_old.html

This becomes an important event for the future of Limassol. Due to the invasion in the northern part of the island, thousands of people were dislocated from both ethnic communities. Greek Cypriots migrated to the south and the minority of Turkish Cypriots to the north.

Limassol grew rapidly and saw great prosperity in its economy which partially was a result from the island's invasion. There was a great development especially in the sector of tourism, something which prior to the invasion, the lead was held by the city of Famagusta.

People from that region migrated and brought with them their expertise and knowledge which developed Limassol into a trade and touristic hub and continues to be still today.

THE URBAN GROWTH OF LIMASSOL DURING 20TH CENTURY



Figure 14. Built Fabric 1920's, concentrated around the harbour



Figure 15. Built Fabric 1940's, construction of the first ring road, Makariou Avenue

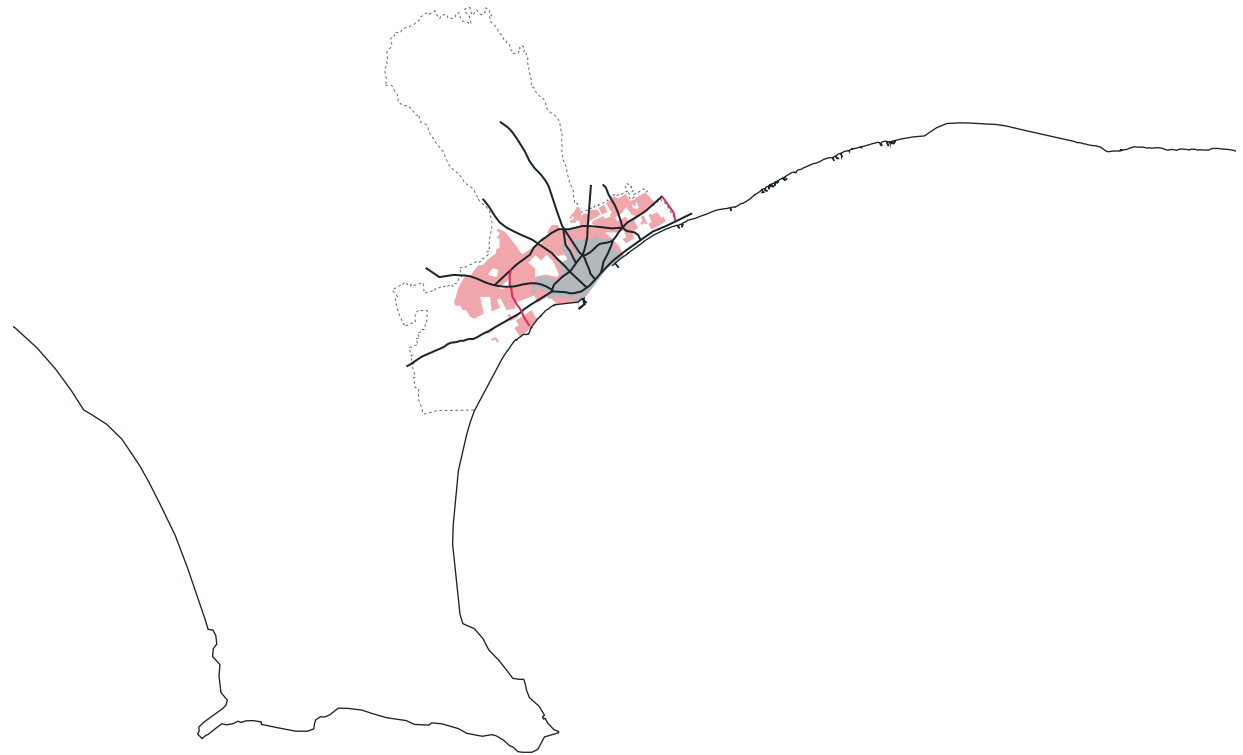


Figure 16. Urban Fabric 1960's, the city expands outwards but mainly along the Makariu Avenue

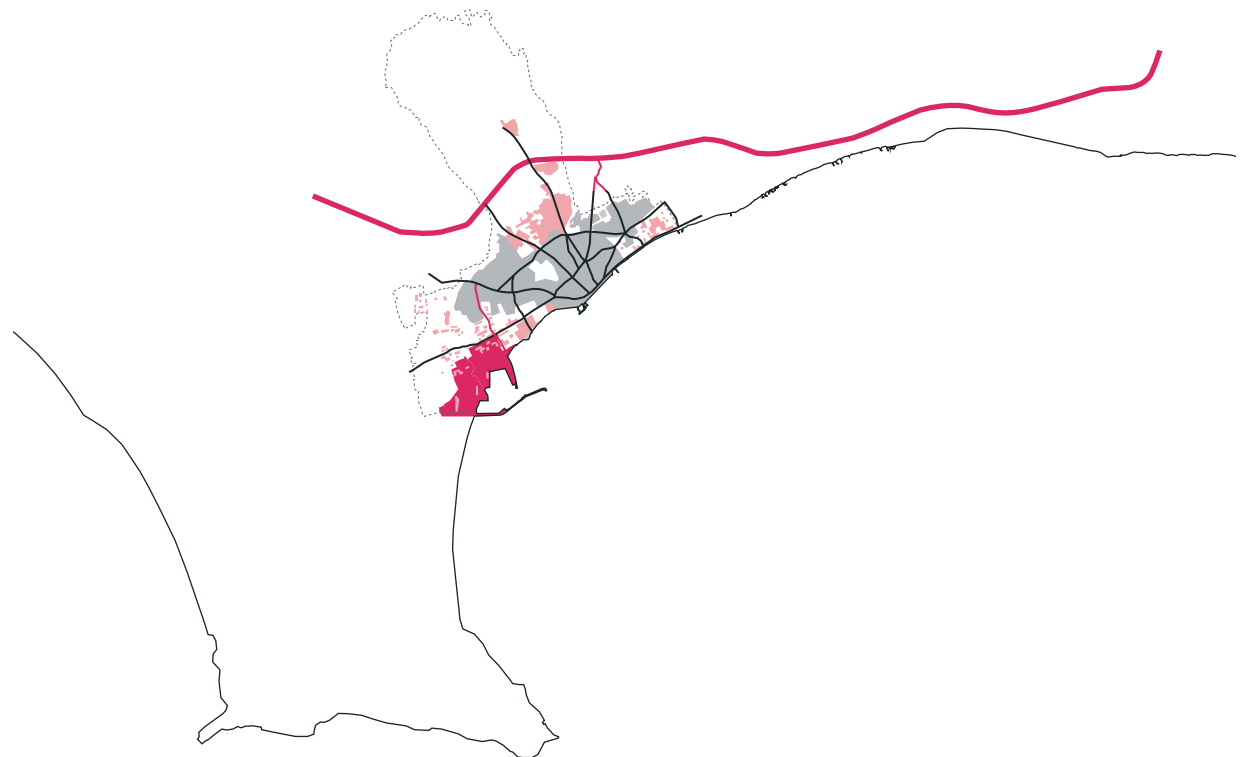


Figure 17. Urban Fabric 1980's, Non uniform expansion of the built fabric, sudden increase in population due to the war events of 1974 and need to quickly house the people who migrated from the north.

2.3 A CITY OF TRADE



Figure 18. The Wooden Pier serving as a Harbour, loading and unloading goods, trade, leisure and a public space to walk on.

Despite the small size and poor image of the town in the past, the port of Limassol was among the busiest in trading since the middle ages. Its region was known, and still is today, for its tasty wine from the region's nearby villages. Among other exports they produced cotton, wool, leather products, charobs, which saw a great increase in trade after the British Empire took over. One of the infrastructural projects commissioned by the British was the

wooden dock extending 273 m to the sea for the loading and unloading goods on the ships. Later on, a small harbour was made that today houses only small boats of fishermen and coast guard. It inevitably became the busiest port with the biggest activity in exports in the whole island.



Figure 19. Loading and unloading goods to the ships and boats. Limassol has been through history a major import and export harbour-town



Figure 20. Agiou Andreou Street, main commercial street in the heart of the city, Photo courtesy: allaboutlimassol.com



Figure 21. Makariou Avenue before its commercialization 1950's, Photo courtesy: allaboutlimassol.com



Figure 22. Makariou Avenue today, A commercial and business Street, Photo courtesy: mapio.net

When the trade activity was part of the old town of Limassol, its urban configuration and commercial activity remained concentrated around the old harbour. The streets were busy and active, with markets, shops and services bustling with life. Local and foreign traders were loading and unloading ships, shaping it into a vivid atmosphere of commerce, trading and social interaction.

The form of the urban fabric and its development was closely associated to the city's main economic activity. During the 19th century the main commercial or high streets as shown in the map were Agkyras street and Agiou Andreou. Those streets had direct access to the center of the trading hub in the city. West of the old town, as economic activity grew and technology developed, industries and storage facilities, handling the goods were



- 1 - Agkyras & Agiou Andreou street
- 2 - Anexartisias street
- 3 - Makariou Avenue

Figure 23. Harbours and Commercial Streets of Limassol, Aerial view: Google Maps

formed along the coast, with a close proximity to the harbour.

After the Second World War, closer to the end of 20th century, Exports and imports from the ships, were transported to the new, much bigger harbour on the western end of the city, handling and storing cargo and cruise liners. The main activity has shifted from the close proximity to the port, to the eastern side of the urban core. This gave more space for uses like leisure and entertainment (cafes, restaurants, bars etc.), some retail and businesses, some cultural and touristic oriented facilities to take place. The main commercial activity which is present till today, happens in Anexartisias street and in Makariou street (the inner ring road) and to some degree, in the remaining Agiou Andreou street.

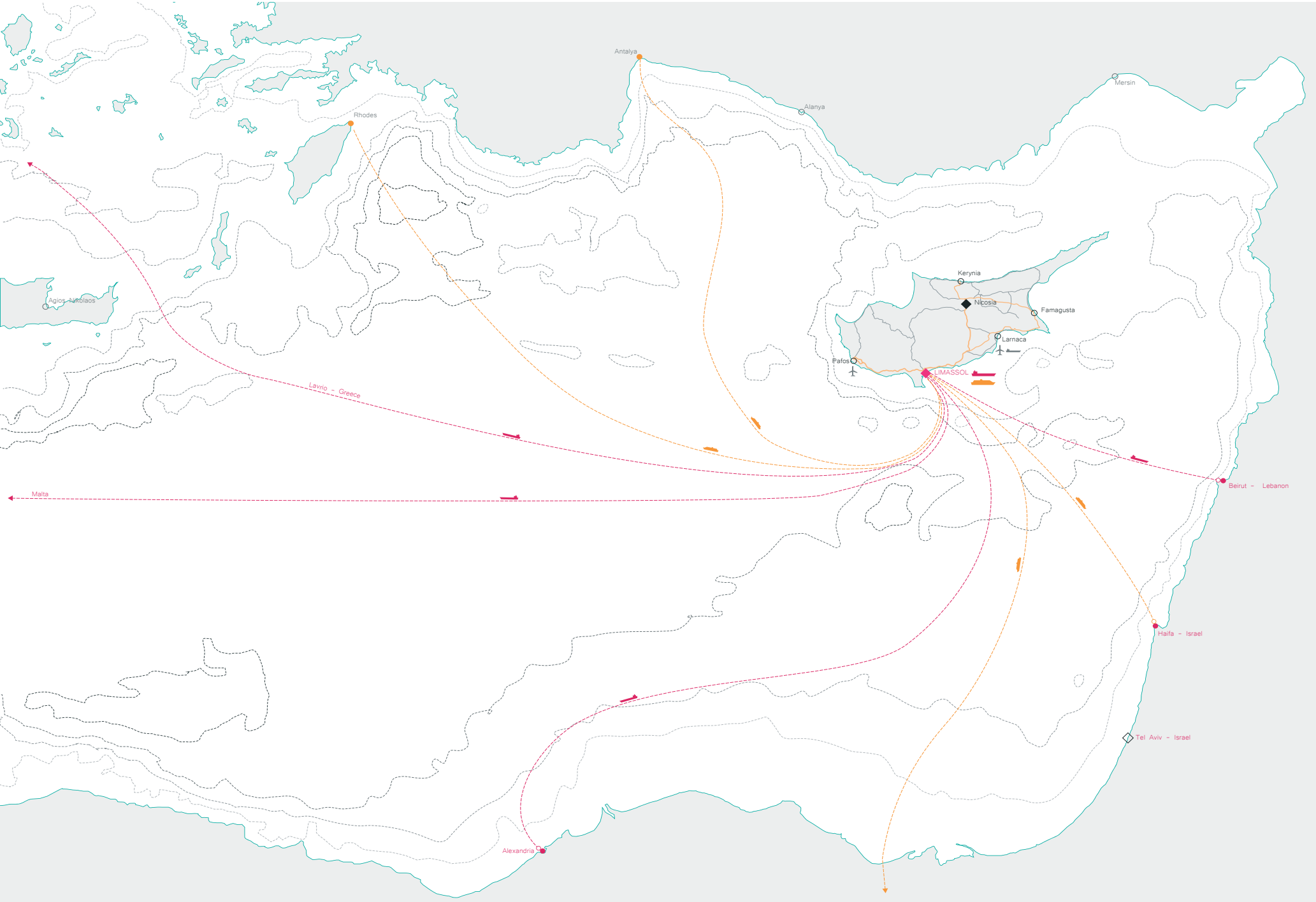


Figure 24. Main Commercial and Touristic Ships, Sources: www.marinetraffic.com, www.cpa.gov.cy

Today, due to its strategic location, the new, bigger commercial and passenger port is one of the key stops for ships before entering the Suez Canal, which connect Asia from and to the Mediterranean Sea. Shipping industries and services have inevitably prospered in Limassol. Both cargo ships and cruise liners visit the harbour.

References:

-Η Λεμεσός σε άλλους καιρούς (Limassol in different times, direct translation) Kostas A.Pilavakis, 1977, Limassol

Many companies have therefore, opened branches and built offices contributing to the island's economy and employment. In general, the city and its society saw great development due to its port.

-https://www.limassolmunicipal.com.cy/history2_gr.html, accessed in 15.10.2017

-Suburban Urbanities, Laura Vaughn, Chapter 4, Nadia Charalambous and Ilaria Geddes, 2015, UCL press

2.4 LIMASSOL OF TODAY



Figure 25. Redevelopment of Molos Sea Promenade, photo courtesy: old.lemesos-blog.com



Figure 26. Restaurants around the Medieval castle market - old town, photo courtesy: unknown



Figure 27. Bike lane along the Eastern coast of Limassol, photo courtesy: lemesosblog.com

Limassol has seen great changes in its urban fabric in the past decade with a great number of big scale projects. The nature of these projects and their contribution for creating a sustainable urban environment, seems questionable.

Many parts of the old town centre have been renovated and some streets and squares were transformed into pedestrian oriented public spaces. Bars, cafes, restaurants and shops increased in numbers making the old town the centre for leisure and commerce.

The seafront promenade also has been redeveloped with proper pedestrian and bike routes along the eastern coast of the city. This development enabled the creation of an important connection with alternative transportation means (other than private vehicles)

between the old town and the touristic area, in the eastern side of the city.

Since the revitalization of the old town, there has been an increase of other issues that the city already has to face. Traffic has become worse every year. Its small scale, dense built fabric is limiting space for parking and driving and any remaining unbuilt plot has turned into private parking. The functions along the pedestrian-friendly areas have almost in all cases, reappropriated into cafes, restaurants and leisure facilities. The urban activities in that area are becoming overwhelming and the few remaining inhabitants of the centre are being forced out due to the high levels of noise, traffic and people.



Figure 28. Pedestrian street in the old town,
photo courtesy : Maria Prodromou, flickr.com



Figure 29. Residential towers in Amathus area, Limassol, photo courtesy : old.lemesos-blog.com



Figure 30. Limassol Del Mar, photo courtesy : leptosestates.com



Figure 31. OVAL, photo courtesy : wkkarchitects.com

After the economic crisis in 2011 which has devastated the whole island, government and planning authorities gave space also to a new strategy to boost its economy.

Recently, new building typologies have emerged in Cyprus and Limassol in particular, high-rise buildings, marinas, a new casino and luxury offices which seem to take over key areas of the city, like the centre and the eastern seafront.

It is a strategy to invite foreign money by investing in properties in the island, in exchange for the cypriot citizenship and passport through a “fast track” scheme.. In many cases, government land is leased in order for these private developments to occur.

These projects are in their majority promoted as luxury working and living,

entertainment and spaces with unobstructed views towards the sea.

However, many of these developments are empty. Owners of such premises are not obliged to live in them. While these grand scale developments bring millions of euros in the city’s bank accounts, the possible, long term consequences of this real estate bubble have not been properly studied.



Figure 32. TOTAL Towers, photo courtesy : totaltowers.com



Figure 33. Trilogy Limassol Seafront, photo courtesy : pericleous.com.cy



Figure 34. The ONE, photo courtesy : wkkarchitects.com

This trend of privatizing land for a specific small group of elites has triggered the concern of many, as more of these developments are to follow. A local environmental agency Terra Cypria, shows its concerns whether the local character of the city might disappear. Access and views towards the sea, a privilege that citizens in Limassol share, will be obstructed with these forms of private developments.

In an interview with Mr. Balentinos Ioannou, a local architect, shares these concerns as he believes that, access to an unobstructed seafront is the right of every citizen living in Limassol. The towers however show little concerns in the city's existing context.

The public space surrounding them as he describes, should be accessible and usable by all social classes, something which does not seem to be the case.

Other concerns regarding these developments are also in the prices of these properties which are out of the Cypriot general standards. A property may cost up to 15,000 euros per square meter when it is located next to the beach and 10,000 euros if in close proximity. Furthermore, high-end buildings as such, require high-end maintenance, often reaching prices of 1000 euros per month for the common expenses per housing unit.



Figure 35. Restoration of the old industrial buildings, Photomontage, photo courtesy: Polytimos Architects

Within the future development plans of Limassol, is to connect the old town centre with the New harbour in the western end of the city. The area in-between, under the name of “Tsiflikoudia” is the old industrial area of the city, with old factories and warehouses dating back from the British Colonial era. Many of them are to be protected as part of the local architectural heritage. The ambition is to create more spaces for leisure, offices and cultural facilities by reusing some of the existing buildings and creating a necessary connection between the new harbour and the old, which was non-existent for the public.

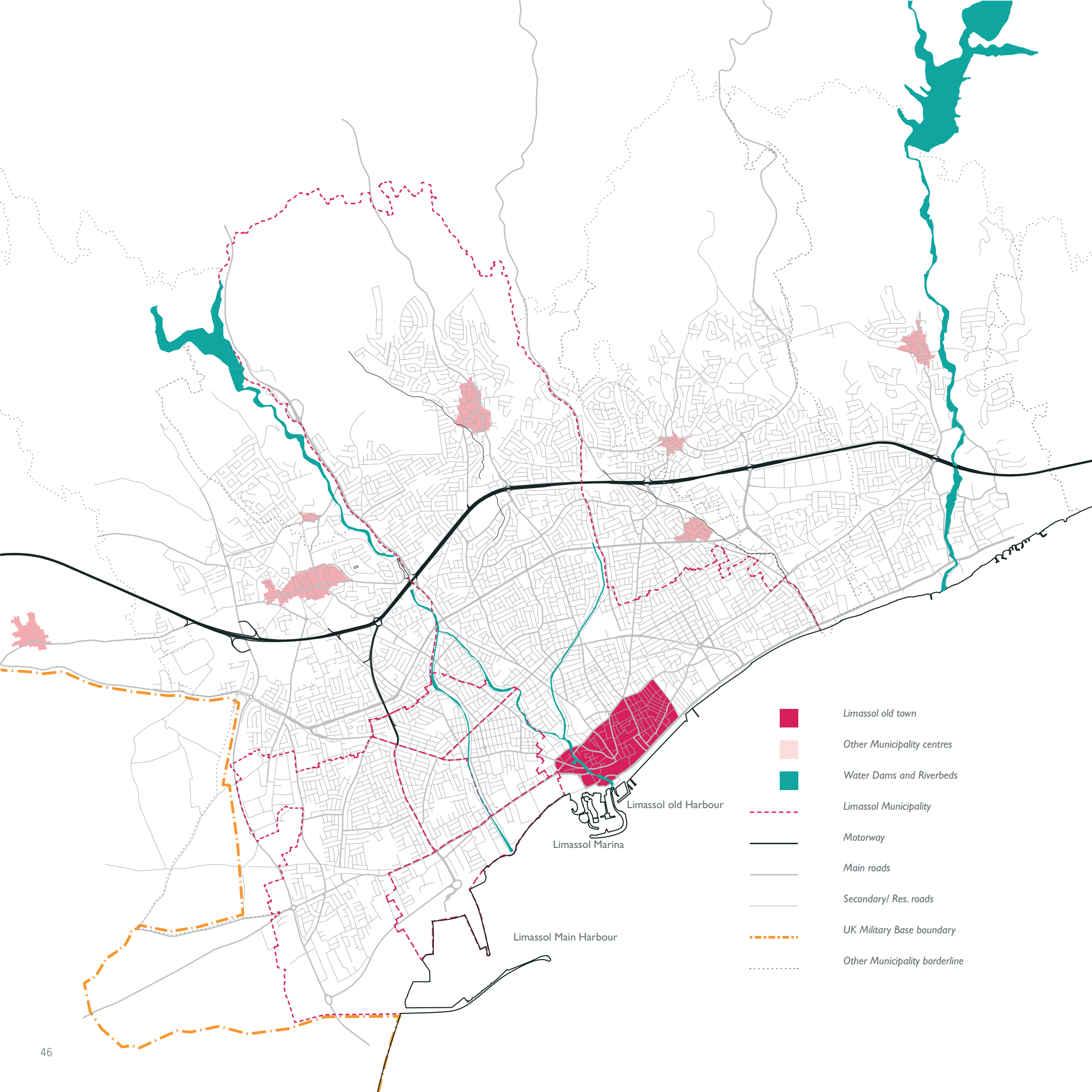


Figure 36. Public spaces on the Western Seafront between old town and New Harbour, Photomontage, photo courtesy: Polytía armos Architects

References

- The Guardian,Article published February 17th 2018, theguardian.com accessed March 30th
- Cyprus Mail,Article published October 1st 2017, cyprus-mail.com accessed March 30th
- City Free Press,Article Published September 19th 2017, city.sigmalive.com accessed 30th March

3. URBAN ANALYSIS



Limassol old town



Other Municipality centres



Water Dams and Riverbeds



Limassol Municipality



Motorway



Main roads



Secondary/ Res. roads



UK Military Base boundary



Other Municipality borderline

Limassol old Harbour

Limassol Marina

Limassol Main Harbour

PRIMARY PEDESTRIAN & BIKE ROUTES



Figure 37. Pedestrian and Bike routes

MOTORWAY AND RING ROADS

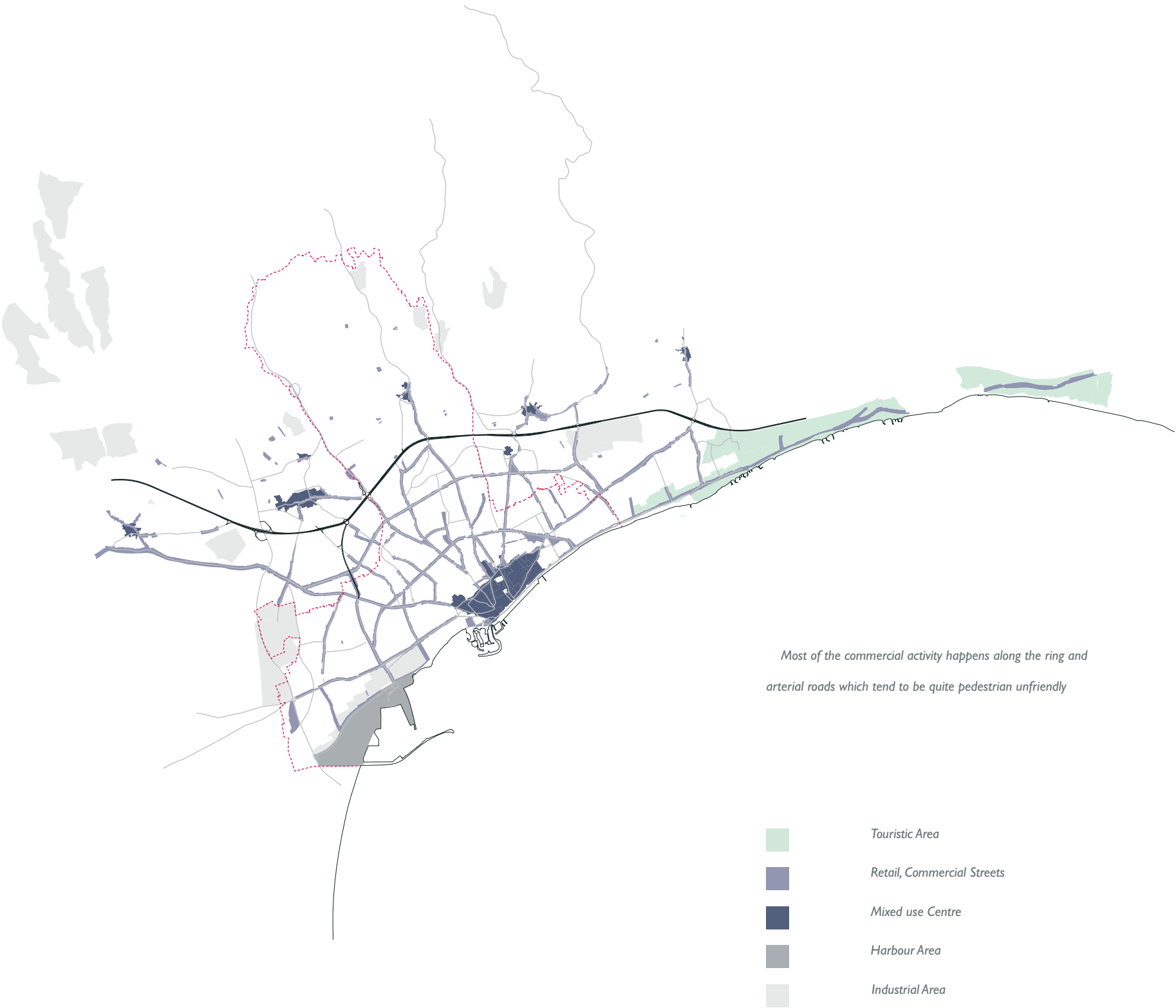


ARTERIAL ROADS

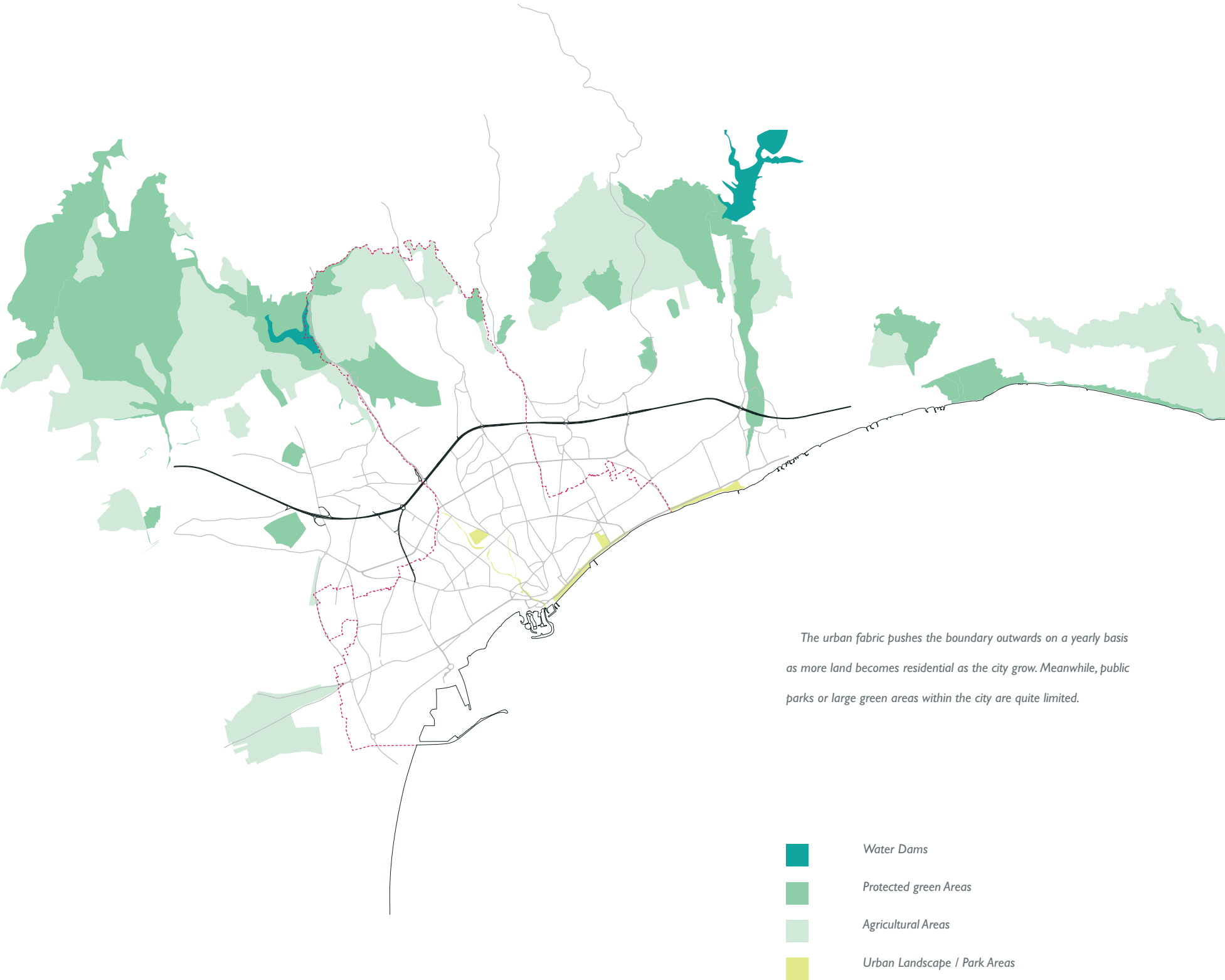


The road network follows a concentric formation (half due to the coast line) and the arterial roads connecting the old town centre of Limassol with the surrounding Municipalities in the greater Limassol region. On a daily basis, most arterial connections encounter traffic congestions since the area inside the first ring road holds the majority of work, leisure and commercial functions.

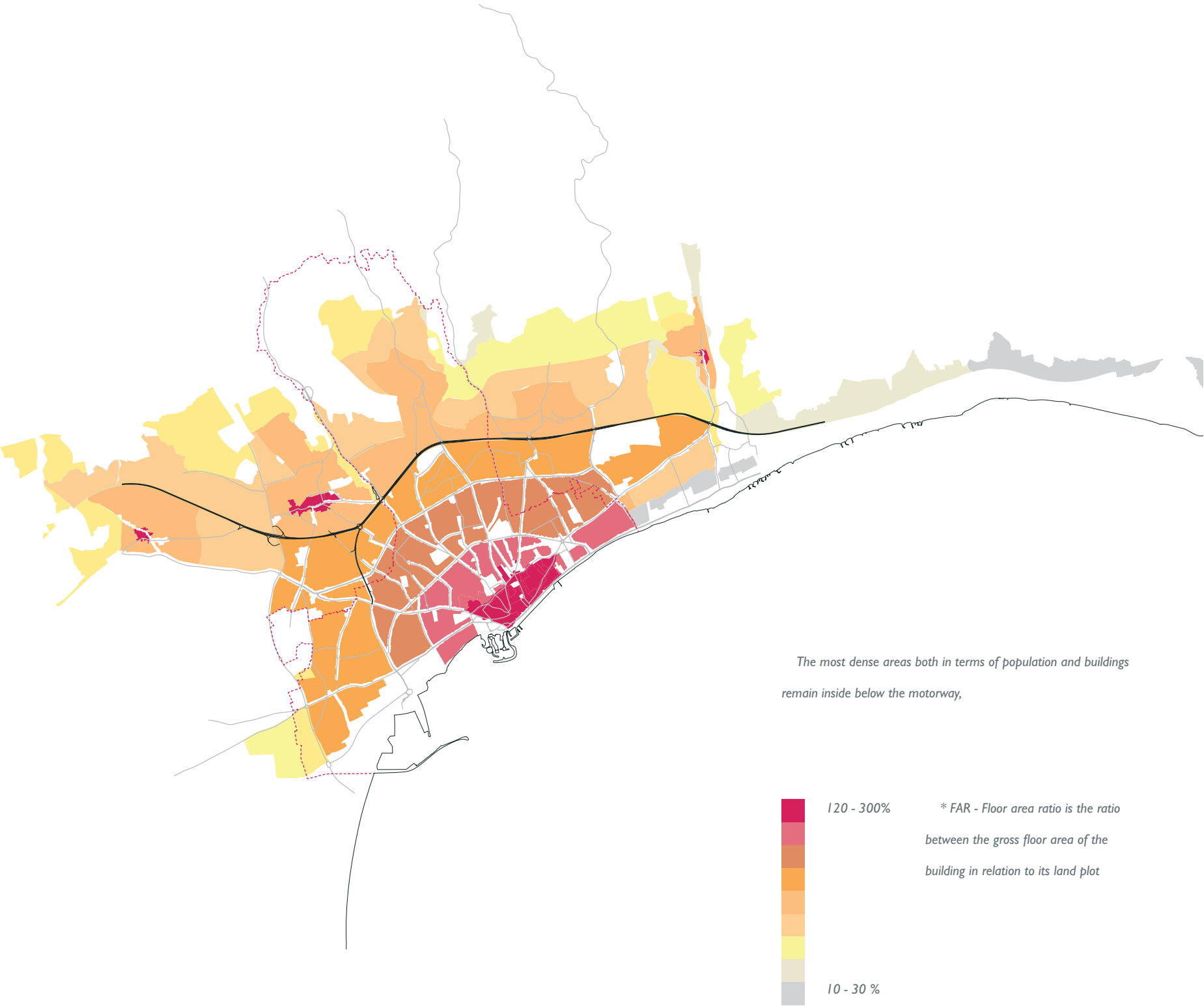
TRADE, COMMERCE AND AREAS OF ECONOMIC ACTIVITY



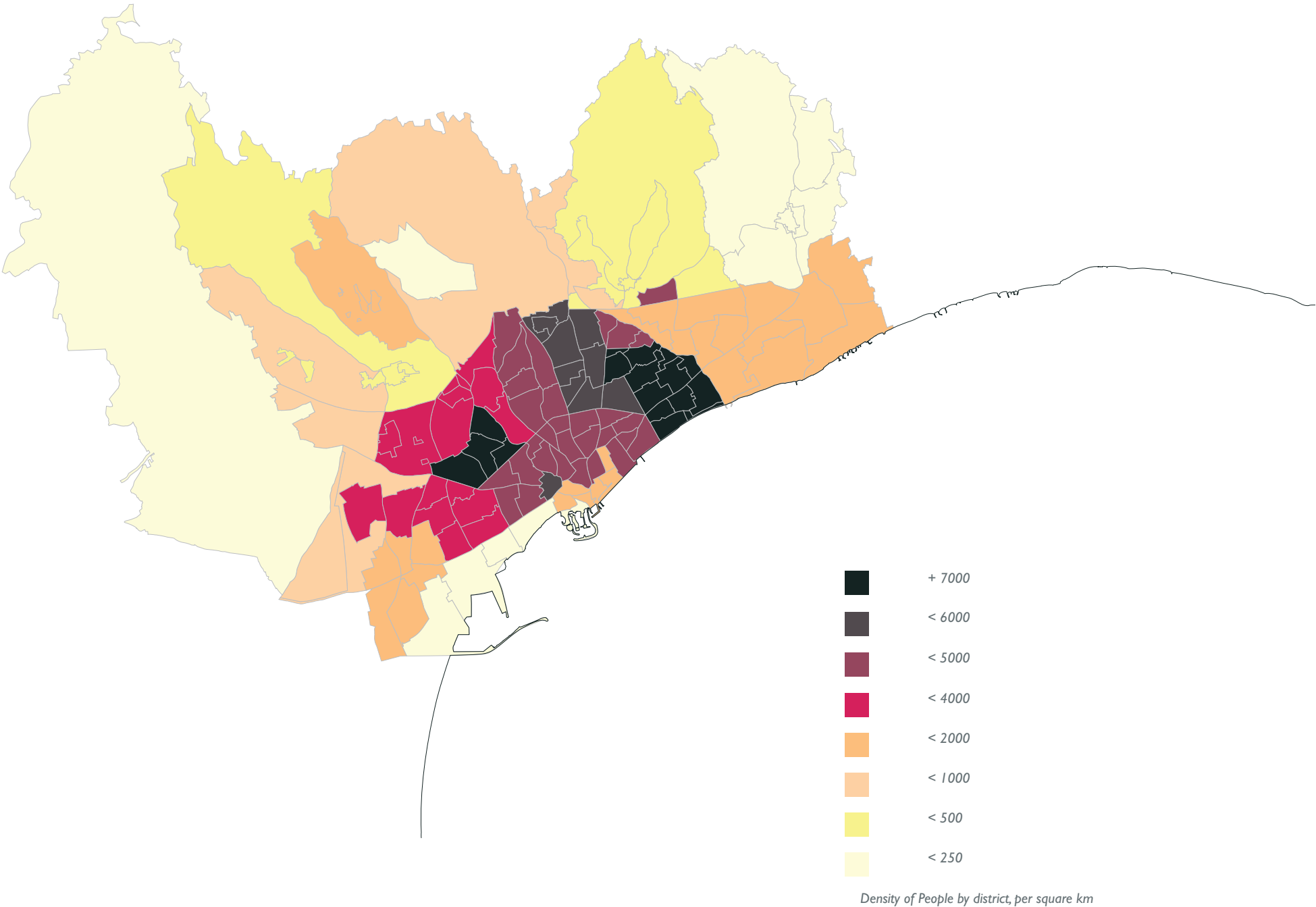
GREEN LANDSCAPES



VARIATIONS OF PERMITTED FLOOR AREA RATIO (FAR)



POPULATION DENSITY BY DISTRICT



POPULATION NUMBER BY DISTRICTS

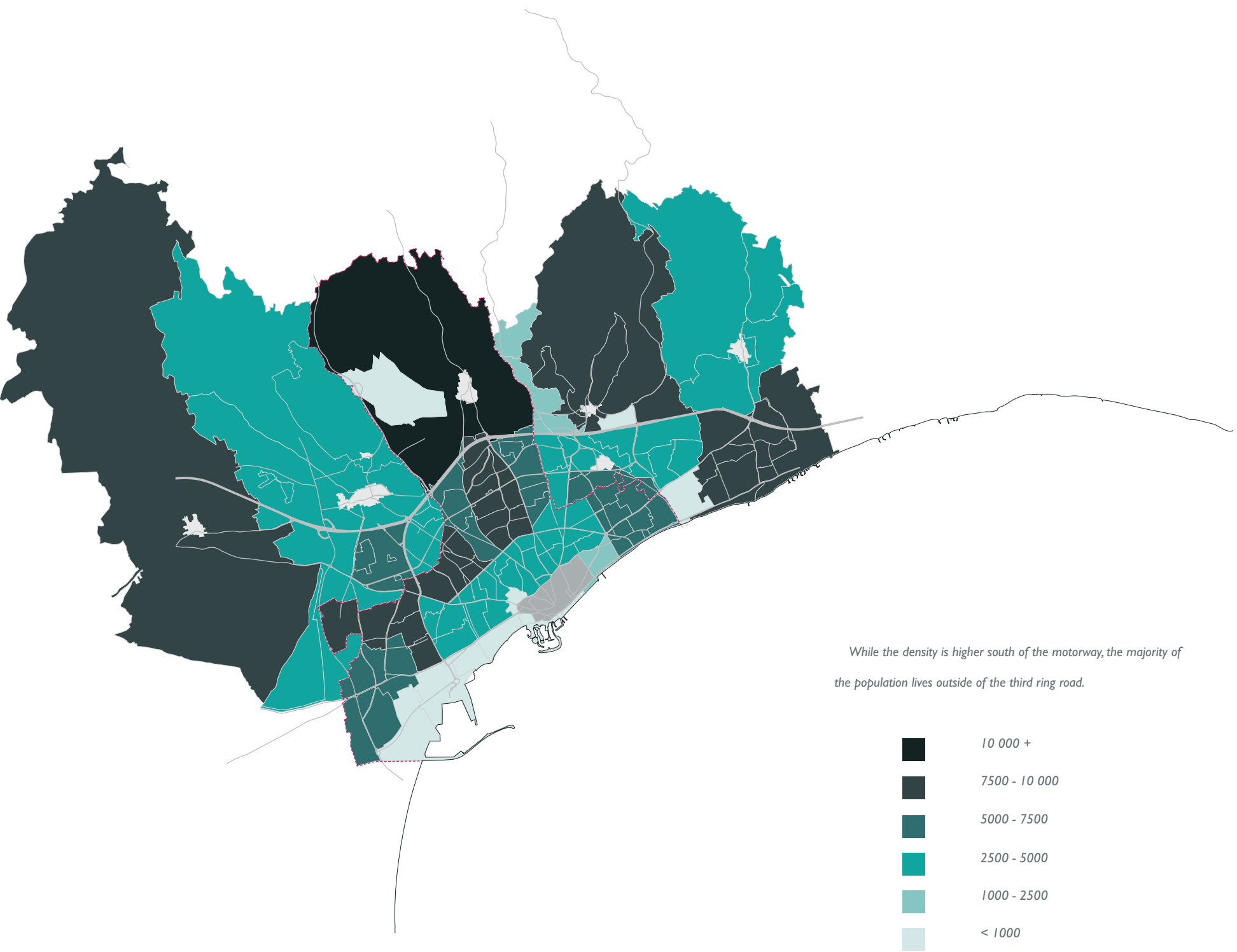
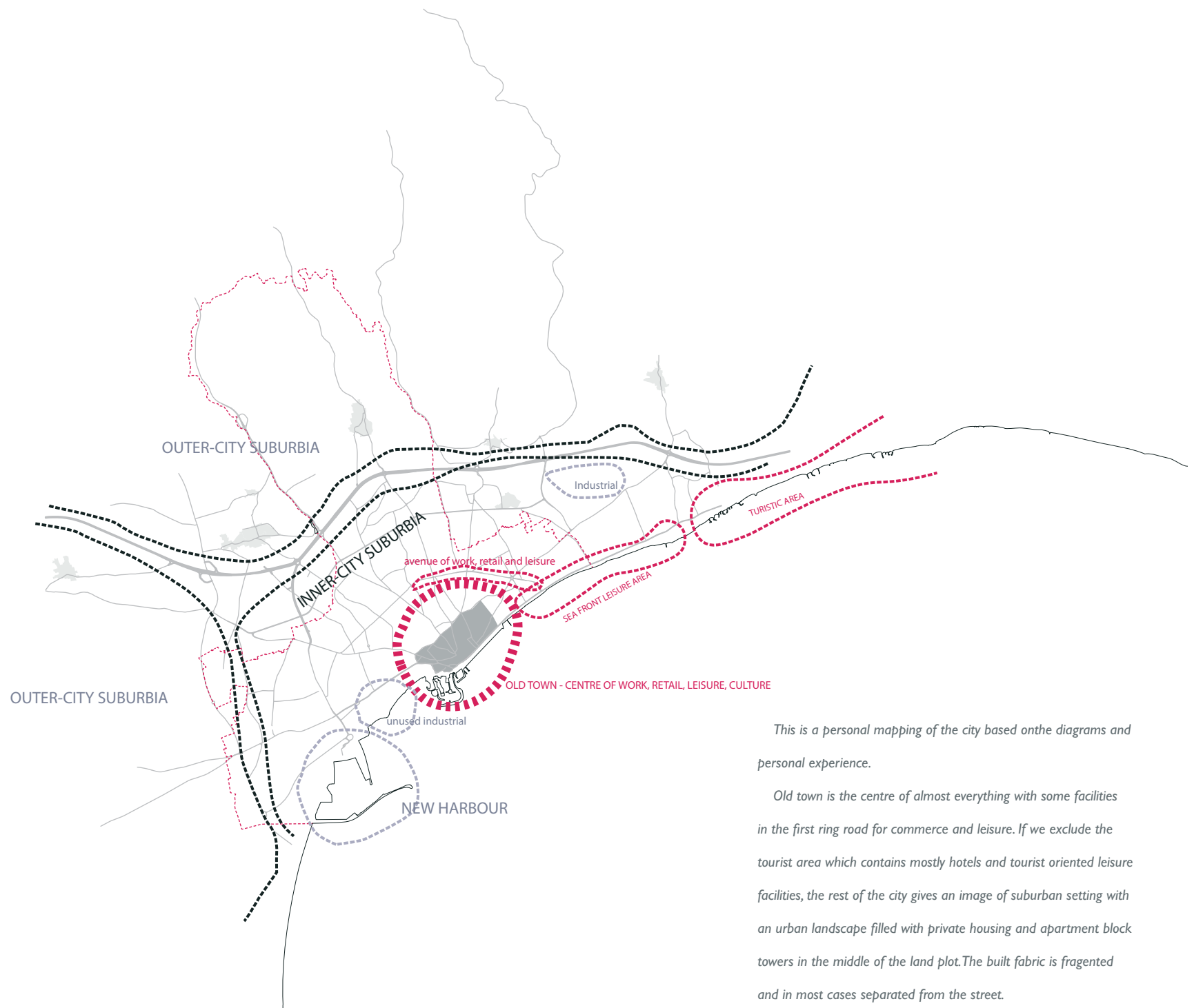


Figure 38. Population by district

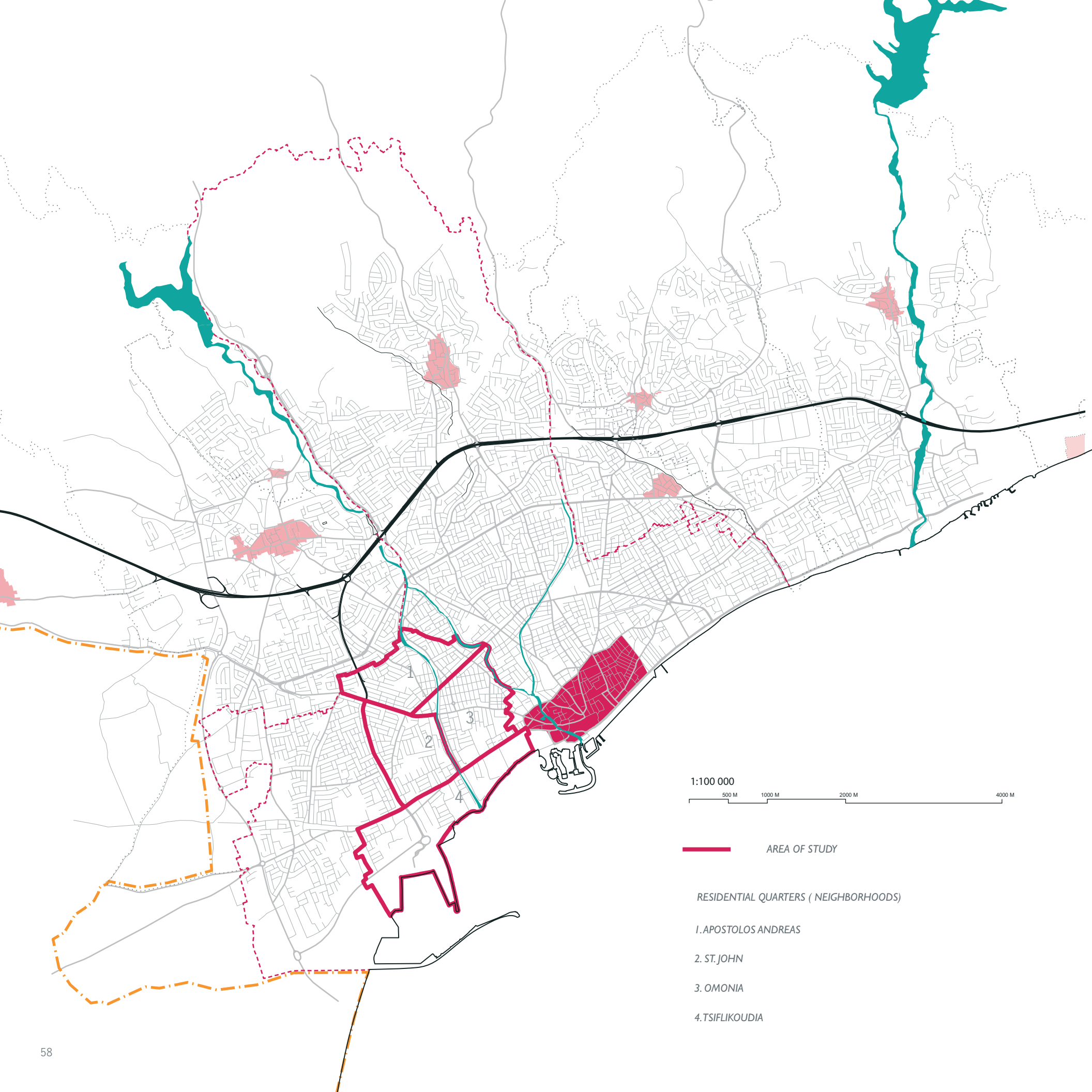


This is a personal mapping of the city based on the diagrams and personal experience.

Old town is the centre of almost everything with some facilities in the first ring road for commerce and leisure. If we exclude the tourist area which contains mostly hotels and tourist oriented leisure facilities, the rest of the city gives an image of suburban setting with an urban landscape filled with private housing and apartment block towers in the middle of the land plot. The built fabric is fragmented and in most cases separated from the street.

Figure 39. Perceptive Image of Limassol

4. SITE & CONTEXT



1:100 000

500 M 1000 M 2000 M 4000 M

AREA OF STUDY

RESIDENTIAL QUARTERS (NEIGHBORHOODS)

1. APOSTOLOS ANDREAS

2. ST. JOHN

3. OMONIA

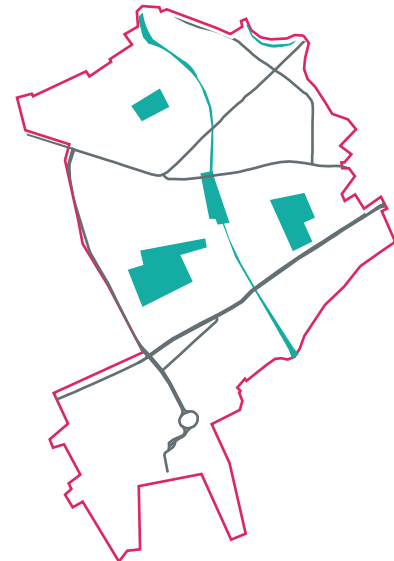
4. TSIFLIKOU DIA

THE WESTERN RESIDENTIAL NEIGHBORHOODS

Primary & Secondary Streets

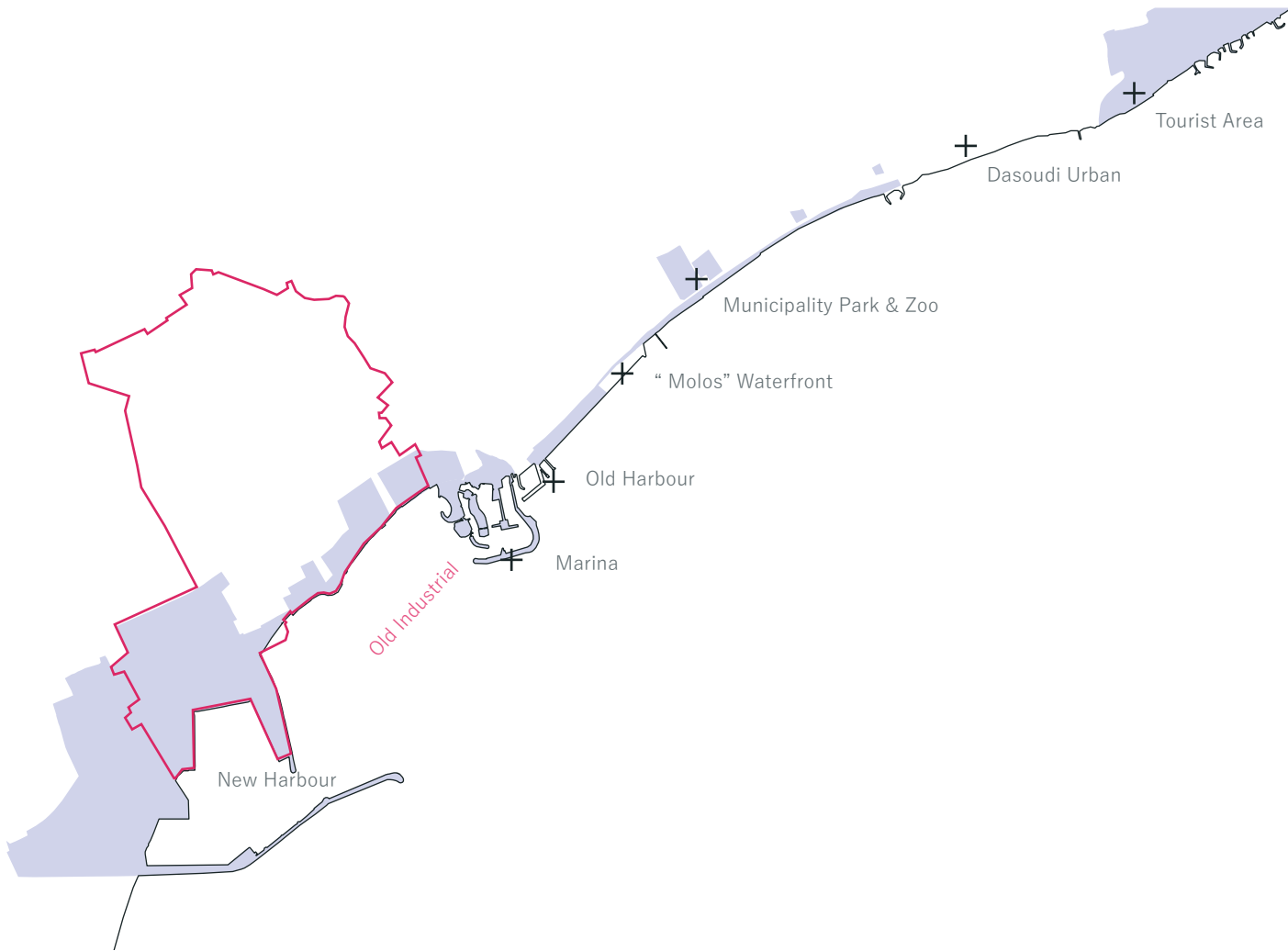


Undeveloped Land





EXTENSION OF THE URBAN WATERFRONT



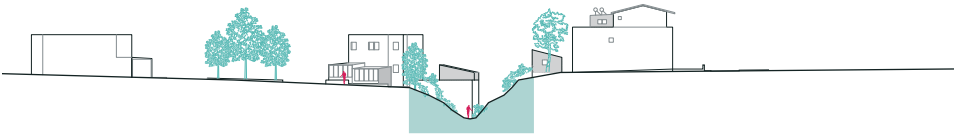
SITE -
GARILLIS
RIVER



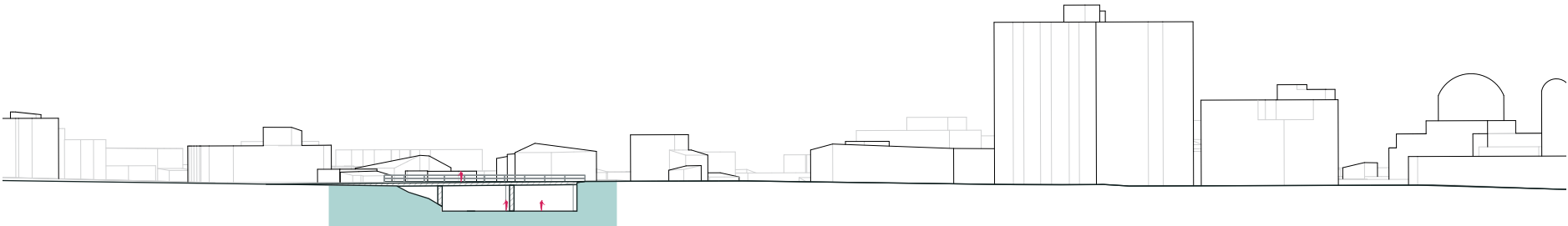
EXISTING CONDITION



SECTION A-A



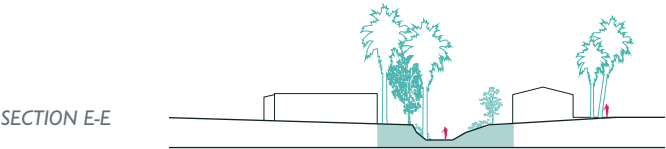
SECTION B-B



SECTION C-C



SECTION D-D



SITE PHOTOGRAPHS





EXISTING FUNCTIONS



INDUSTRIES + WORKSHOPS



COMMERCIAL+MIXED USE + OFFICES

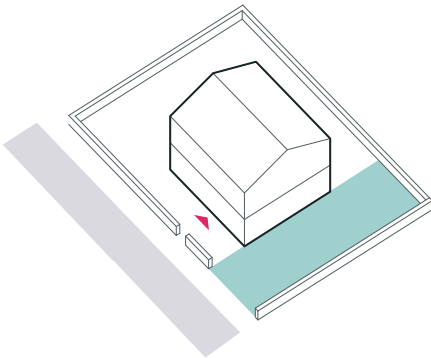
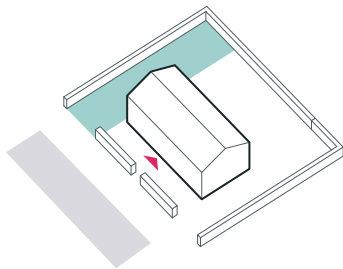


GOVERNMENT ADMIN + EDUCATIONAL

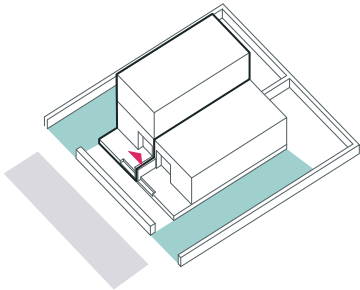
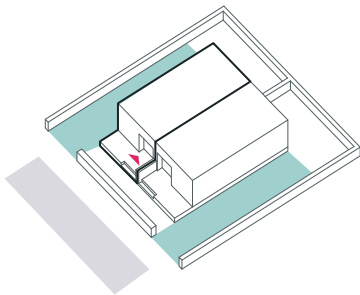
- industries
- Retail - Shops
- Mixed Housing - Shops - Offices
- Offices
- Public Schools
- Administrative - Government - Religious

HOUSING TYPOLOGIES OF THE AREA

DETACHED HOUSING



SEMI - DETACHED HOUSING

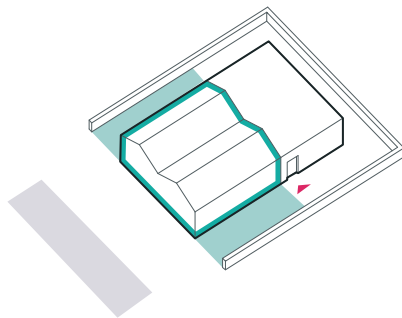
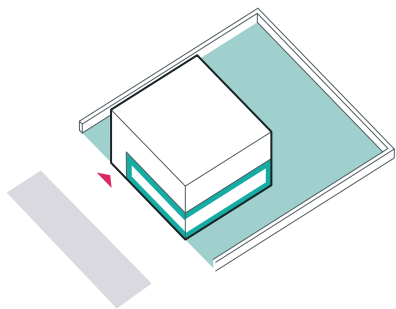


Housing Unit

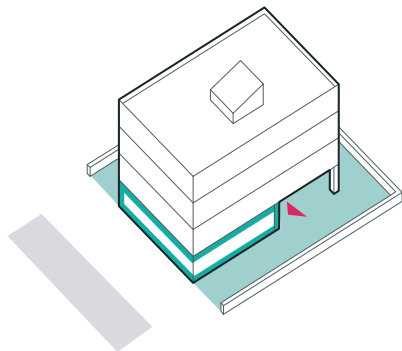
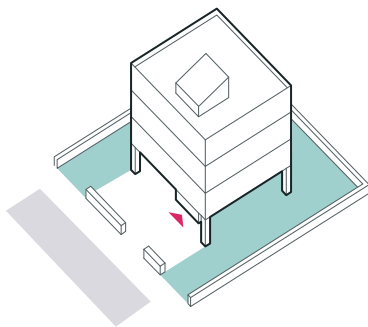


Private Space for Vehicles

MIXED USE



APARTMENT BLOCK



Street



Commercial / Shops

5. PROGRAM

The Garillis riverbed becomes an opportunity for this design project to transform its current mono-functional state, into a multifunctional platform for urban spaces that could benefit the city in multiple scales.

On the city scale the aims are:

- Connect the Western neighbourhoods along the north-south axis by transforming the river into a street which is pedestrian and bike friendly. This will extend the transportation network with alternative means of transport and in order to reduce traffic from private vehicles.
- Transform the riverbed into a green belt that will bring nature into the city, acting as a green lung in an area dominated by hard surfaces like asphalt and concrete.
- Rethink its initial purpose of draining the rainwater into the sea, and introduce instead active design solutions that may harvest and reuse that water for irrigation purposes

On the neighbourhood scale the aims are:

- Revitalize the neighbourhoods by creating Activity Nodes along the streetscape – riverbed. The nodes are taking into account the existing context and generated near places like schools, churches, main roads etc. This will allow the concentration of more people in close reach of existing active environments.
 - Each node will have its own character and set of functions. This will allow the people living around them to create a sense of belonging and a sense of identity. Markets, squares, parks, playgrounds, sports facilities and a library among other uses, aim in generating urban public spaces that encourage socioeconomic and cultural exchange.
- The fertile land of the riverbed is a good opportunity to create urban farming allotments and community gardens. This will engage people in activities that enhance the sense of community while being productive and growing their own food. Through the goods produced, the community may create collaborations with restaurants, hold a farmer's market and provide seasonal organic food to people living even outside the area. Strategies as such, can provide a good option for lower income families and individuals.

5.2 CASE STUDIES

The following case studies demonstrate how the idea of a street and public space come together in a variety of scales. While connection and access is a key element of their program, they demonstrate opportunities for other function to develop as well, where streets behave also as public spaces. These modern examples reveal how strong is the relationship between their spatial qualities of their architecture and the street, but also how it has determined the final outcome. These are examples which show how the surrounding context becomes crucial in the design process and how developments as such may influence their wider area.

A part of the case studies is referring to the local vernacular architecture of Cyprus. Interestingly, the housing typologies developed in the past had a strong relationship with the streets generating many activities in them. By studying the local architecture and its evolution, will provide a deeper understanding of how streets related with the built element and its spatial qualities, as well as how it may have contributed in shaping active streetscapes.

ATLANTA BELTLINE - AN URBAN SCALE MIXED USE STREET-PARK



Figure 40. The Beltline, Source: Google Maps, beltline. org, Drawing made by the author



Figure 41. Public Art Exhibitions which change on a yearly basis. Transformation of previously Unused urban spaces into usable. Photo courtesy: beltline.org



Figure 43. Music Festivals and Events along the Beltline, Photo courtesy: beltline.org

The Atlanta Beltline redevelopment project is one of the largest ongoing urban redevelopment schemes currently undertaken in the United States. An unused rail corridor that forms a loop around the city's mid- and downtown, has been reappropriated into a pedestrian, bike and transit path, which connects the outer existing 45 neighborhoods

This ongoing project is to be completed approximately in 2030 and will include a series of public spaces and new and reforested public parks along the loop's 22 mile route. It introduces light rail transportation (tram), which in combination with the existing infrastructure, should make connections in and out of the city more efficiently and sustainably.

In its effort to reduce the use of private automobiles, the city will develop a light rail transit along the whole beltline, as well as connecting to its existing infrastructure (Marta rail System). The surrounding neighborhoods can therefore easily connect between them and move in and out of the city. The options of walking or biking in a continuous, safe from traffic, green pathway, in the long term should also improve the physical health of the citizens.

Areas that have been left in a neglected state, are now reappropriated to different uses in order to create a vibrant public realm along the trail. The value of land and housing in some deprived neighborhoods, already is showing an increase despite the project's incomplete state. Parks, cafes, shops and with the help of the light rail should enhance the urban activities taking place in the existing neighborhoods but also generate new ones.



Figure 42. Graffiti Art, Photo courtesy: beltline.org

Already, the beltline hosts in a yearly basis, public artwork with open invitations for artists which updates every year for locals and visitors to enjoy. Events, concerts and other shows are able to perform in various spots along the beltline enriching the city's cultural events and activities.

In the redevelopment plan, also includes building affordable housing projects, aiming for lower income communities and families. The variety of housing values along the beltline will invite social diversity, with people of different incomes and backgrounds, connecting through this grand scale development.

This redevelopment project sets not only an example for other cities in the United States, but a possible strategy for cities around the globe. It creates new possibilities for an urban space to evolve, from a space which was previously neglected and deteriorated.

It is an effective strategy to increase a city's green footprint but also revitalize existing neighborhoods and communities. It is an urban scale initiative to provide better places for its people, engaging them directly or indirectly to the city's public realm, improving the socioeconomic conditions, safety and quality of life in general.

References

The Atlanta Beltline, <https://www.huduser.gov/portal/casestudies/study-12052016.html>, accessed 19th Jan 2018
<https://beltline.org/>, accessed 19th Jan 2018

LA LIRA THEATRE BY RCR ARQUITECTES



Figure 45. View towards the brige connecting the other side of the river in Ripoll,
Photo Courtesy: Suzuki Hisao

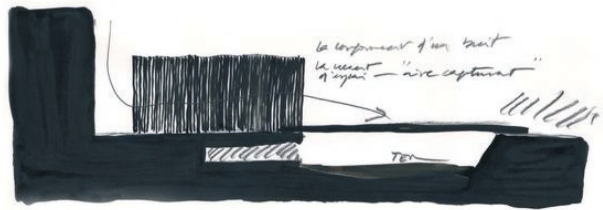


Figure 44. Section Sketch, Photo courtesy: RCR Arquitectes

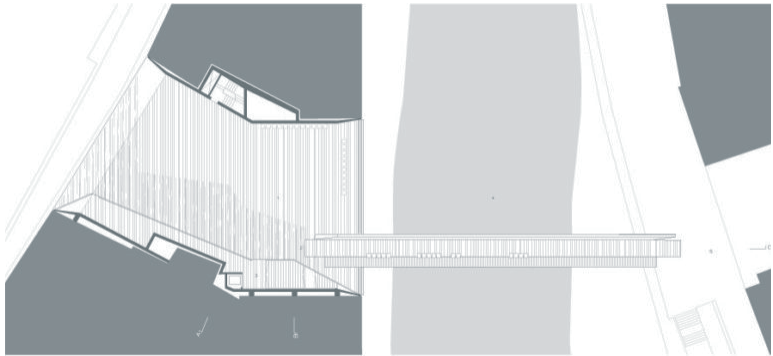


Figure 46. Plan Ground floor: Photo Courtesy, RCR Arquitectes, Source: wikiarquitectura.com



Figure 47. View from the opposite side of the river, towards La Lira covered square, Photo courtesy: Suzuki Hisao

This interesting project can be described as a literal interpretation of a street being a theatrical set. The gap between the existing built fabric, becomes here an opportunity to connect with the existing street network of the historical town of Ripoll in Spain, and the street opposite the river by creating a bridge over the river Tar.

Ingeniously, the architects decided to leave the in-between space empty, covering the walls of the adjacent buildings and the roof with a linear pattern made by cor-set metal. All its functions are placed either on the side or underneath the outdoor space. The multipurpose hall underneath allows for various events to occur while keeping the flow of people on the covered space to flow uninterrupted. In addition to its physical connection of the town's street network, this project aims in creating quite distinct visual connections as well. While its form rather can be characterised more like a void, it fills the gap in a continuously built urban fabric but also frames views of the existing buildings surrounding it. Depending from which side someone is standing, the void becomes the frame either

of the road across the bridge or to the facade of the building opposite the theatre. The bridge connects the two sides physically but also its permanent seatings allow people to have a rest and engage with the water.

The project's programmatic configuration is rather simple despite its flexibility to use the space underneath for multiple purposes. Though, La Lira most importantly seeks approach not necessarily in a mixed use purpose but rather establish mixed spatial relations with its context. Whether its connecting the two parts of the town, or engaging with the water, the square like platform or the infilling of the existing urban fabric, this project becomes an opportunity for a variety of uses.

References

www.architizer.com
www.divisare.com
www.publicspace.org

DONNY BROOKS QUARTER



Figure 48. Photo courtesy: Peter Barber Architects, peterbarberarchitects.com

Donny Brooks quarter in London became a strong representative for new ways of living in England. Being greatly awarded and internationally praised for its innovative approach for housing design, Peter Barber, the architect of this project points out, that they approached it not as a housing scheme but rather as a piece of the city. The layout of this housing scheme around the idea of the street, becomes the key element of its success, connecting its surrounding context.

This highly dense is limited in 3 storeys high, based around two streets passing through

the middle of the site. The intersection of the street which form a “t shape” is widened forming a semi public square like space. Key point of this project is the relationship the buildings have with the street. The entrances open up directly into the street, immediately relating to the outdoor public space. By this, it eliminates any common corridors or staircases which are typical to modern housing schemes, therefore the street becomes the space for circulation and inevitably the space for interaction and social encounter.



Figure 49. Diagrams courtesy: Author

Despite the direct relationship of the entrance into the street, a sense of privacy is still retained. When closely studied the threshold between public and private shifts gradually in various stages which do play an important part for the success of this project. The streets surrounding the site are the ones appealing to the general public in which people from the donny brooks quarter and its surrounding estates get to use. The T shaped, enclosed streets within the site, while still open to the general public, gradually shift the line of very public to less public, focusing more in creating an outdoor inviting street-space, a platform to be used mostly by the inhabitants.

From the outdoor public street, the entrance door opens up to the private, but nevertheless public space of the house itself, eliminating any unnecessary hallways, pushing bedrooms and bathrooms to the back or the upper floor, being the most private space in the household. This gradual shift from public to private engages a person to the public realm while retaining some sense of privacy in the small scale of room configuration, to the city block layout and if future brings more project similar to this one, to the streets of a neighborhood or a district.

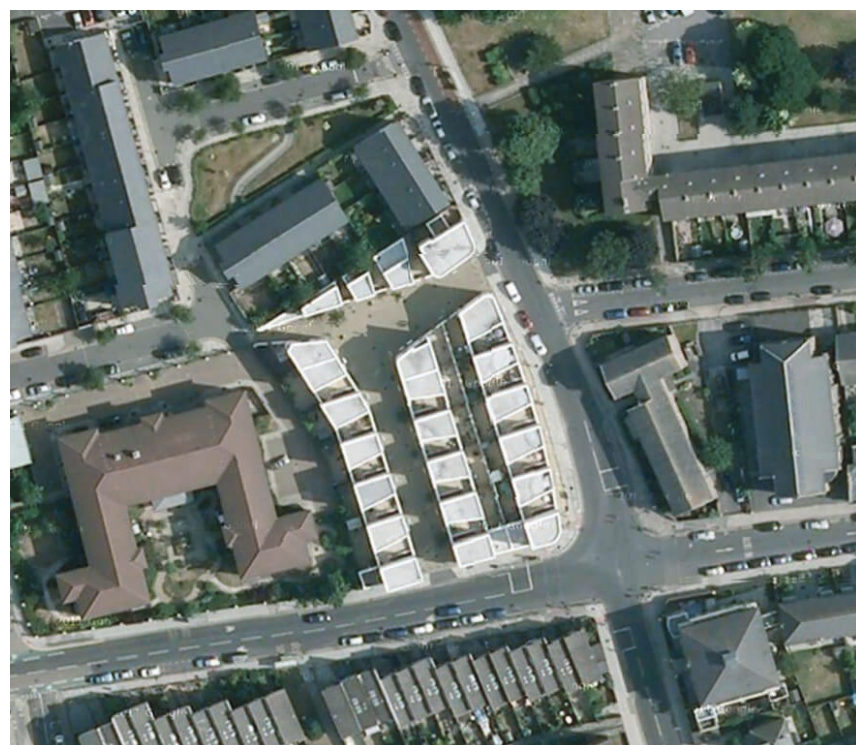


Figure 50. Satellite plan view, Photo courtesy: Google Maps



Figure 51. A pedestrian street "in the housing block" Photo courtesy: Peter Barber Architects, peterbarberarchitects.com



Figure 52. Entrances and windows have direct relationship to the street,
Photo courtesy: Peter Barber Architects, peterbarberarchitects.com

These fairly compact housing units are to become a great example to follow when it comes to dense housing and their relationship to the street. It is a physical embodiment to ideas that Jane Jacobs and Jahn Gehl, among others, write about in terms of street and the built form surrounding it. Donny Brook quarter in its pure white simplistic form derives ideas and memories from a past while retaining a modern character and embracing the contemporary lifestyle of the 21st century.

The Donny Brooks Quarter project's approach however is not something unseen before. It is a result to a common sense approach for a design solution where people and pedestrians become the focal point. The approach to housing has been the same for hundreds of years in many places around the world before radical shift to the modernist ideas and focus on vehicle mobility.

Similar examples of housing typologies can even be found locally in the context of Cyprus and Limassol itself. One needs to go only to the old town center or to a nearby village outside the city to find architecture where streets are vibrant and filled with life and strongly interrelated with its adjacent built form.

References

<https://www.theguardian.com/artanddesign/2006/feb/06/architecture.communities>
peterbarberarchitects.com

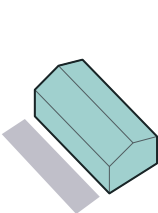
THE LOCAL HOUSING VERNACULAR

Housing in Cyprus since has been predominantly based on the courtyard typology which took many different forms depending on the period and the socioeconomic condition that they belong. Different needs, different rulers and influences have shaped a multi-layered housing architecture in the island which still is distinguishable today in its old urban centres and villages. Whether it was in an urban or rural setting, courtyard houses are even today, proven to be the most efficient in their spatial distribution and energy consumption for the island.

In the context of a neighbourhood it has been a typology which enabled urban activity and social interaction to occur in its adjacent streets in a period where privacy and protection were in bigger concern in the past.

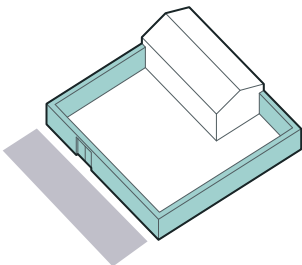
It is important to observe and study the local architecture, not for envisioning scenes of a past era, but rather understand how design decisions in spatial distribution of the different elements of the house, may have become key factors in permitting a public realm to flourish and strengthen the sense of community.

EVOLUTION OF THE LOCAL HOUSING TYPOLOGY



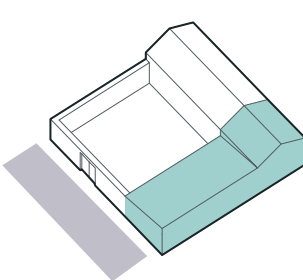
Basic House - “ Makrinari”

A single room building usually the size of approximately 4 x 7m with the basic living functions happening in this one room. It is one of the oldest of the local typologies and most basic.



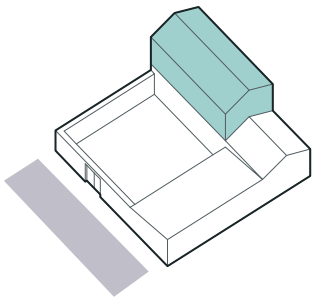
Typical House

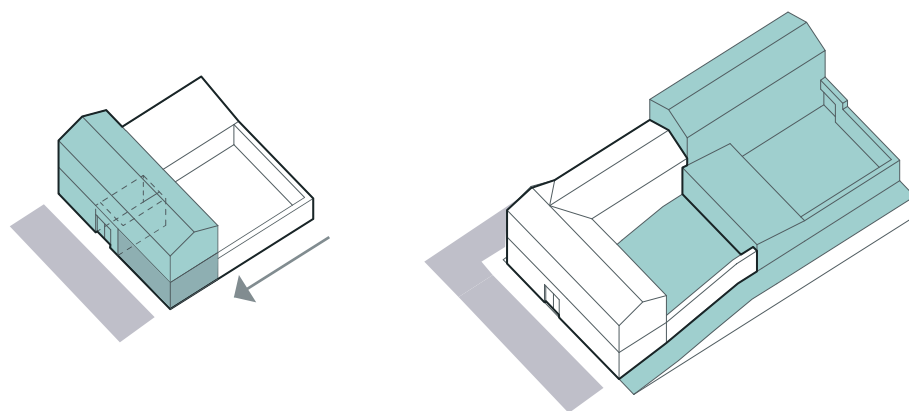
A tall wall is in most cases built around the land boundary with the Makrinari placed on one of those walls depending on the orientation of the sun and the morphology of the ground



Extentions

The typicla house was often flexible for expansion along the boundary edge. The growing needs of a family usually created either new rooms accessed from the courtyard along the wall, or a second floor or both.





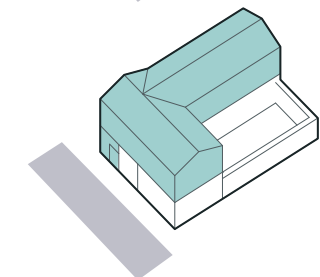
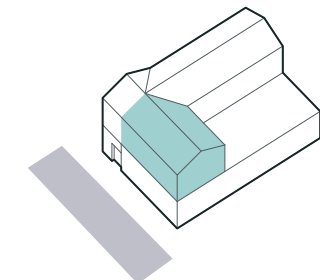
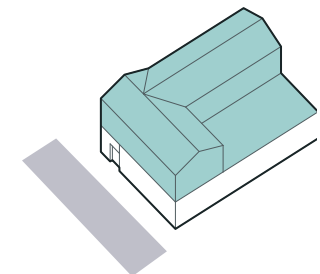
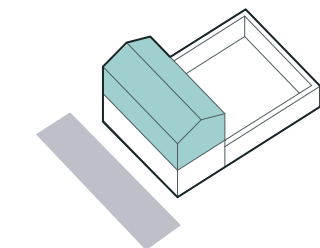
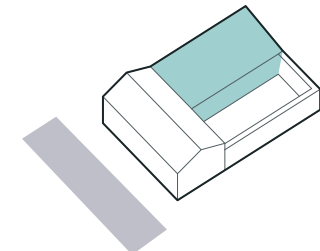
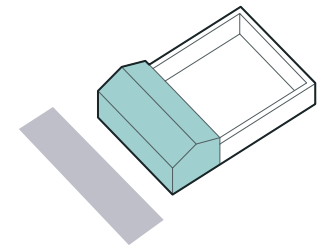
Mixed use

Sometimes the main house was pushed on the street edge. Usually this occurred from the ground morphology or the matter of privacy with its neighbouring house. Also, a common reason is the need of a different function separate from the house itself. A storage for the agricultural produce, a stable for the animals, a shop, a rental home, a workshop or any form of function that required direct access from the street. Mixed use housing complexed was an obvious solution to the needs of that period. Often is seen that many walls are often shared either to form the housing unit or the courtyard in order to minimize cost.

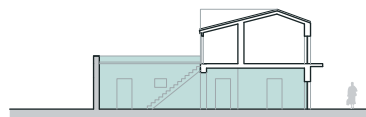
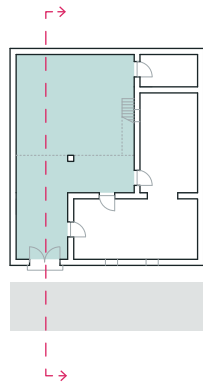
VARIATIONS OF MIXED USE UNITS

HOUSING

OTHER FUNCTION



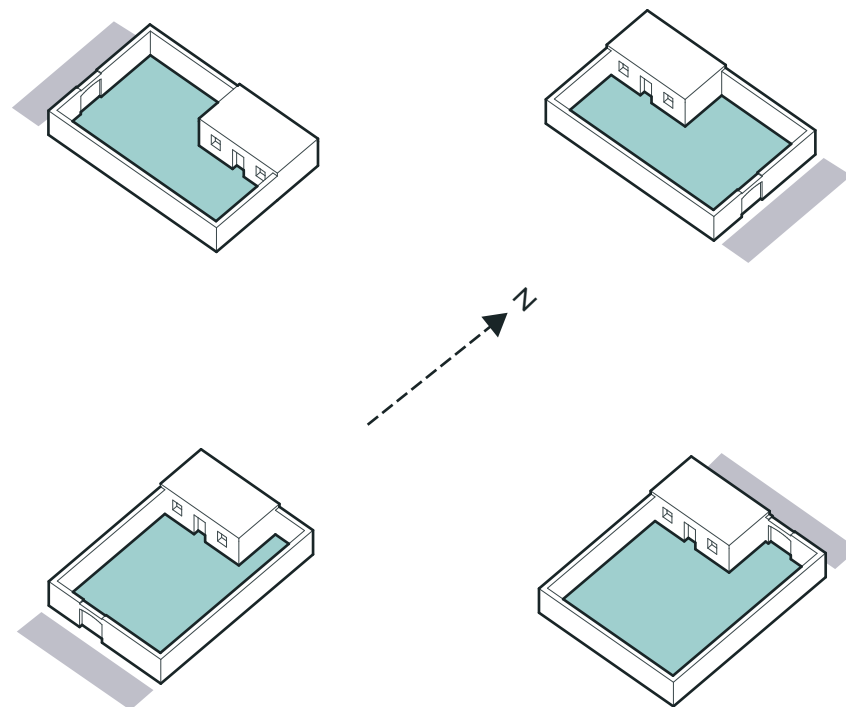
TYPICAL PLAN OF AN URBAN COURTYARD HOUSING TYPOLOGY



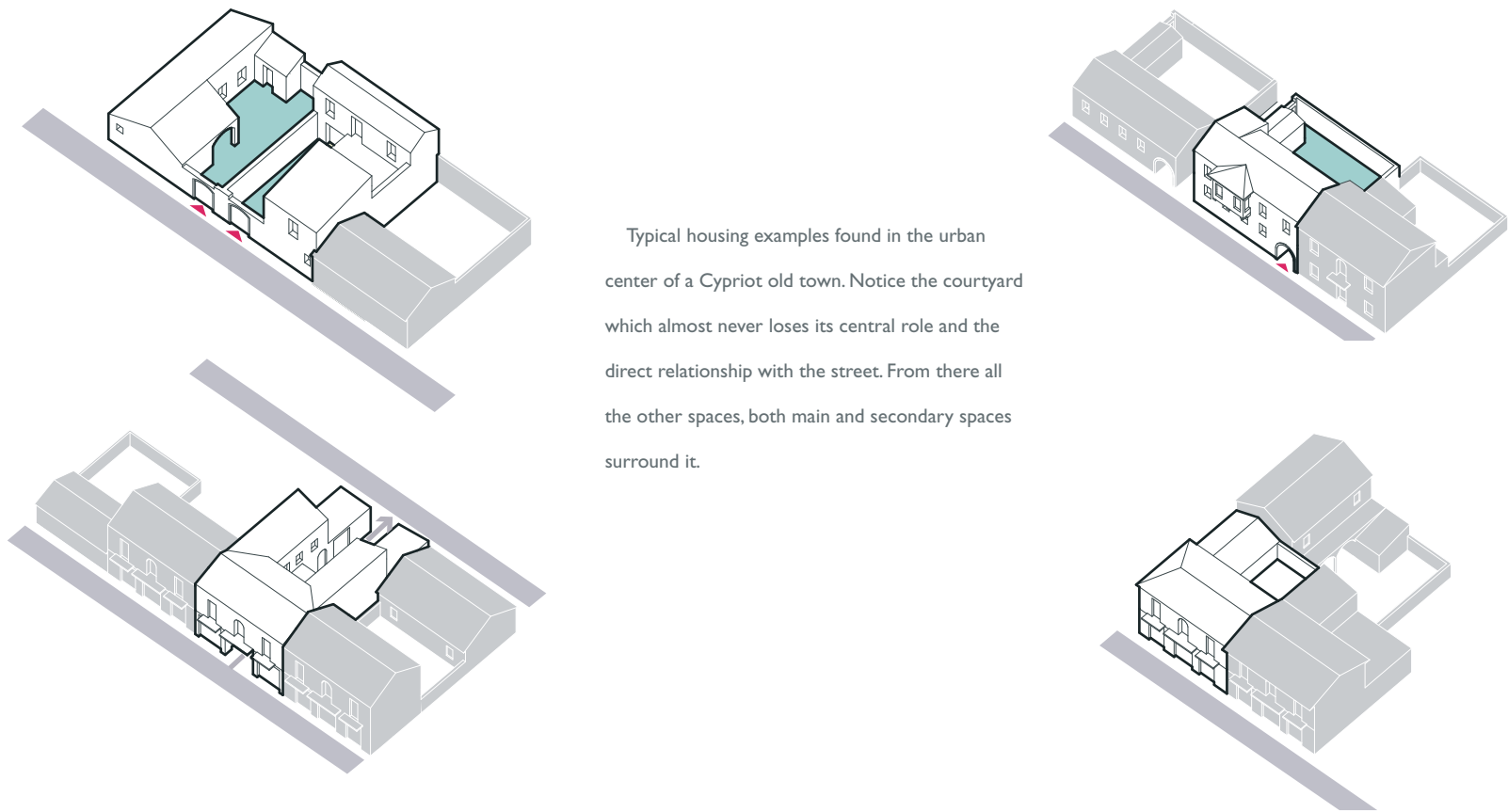
ORIENTATION

Whenever there was an opportunity to place the house most efficiently, the long side of the house with the entrance often facing south.

Important is to point out that that the entrance to the house happened through the courtyard. The courtyard had a separate entrance to the street since the courtyard was the heart of the house where most activities occurred.



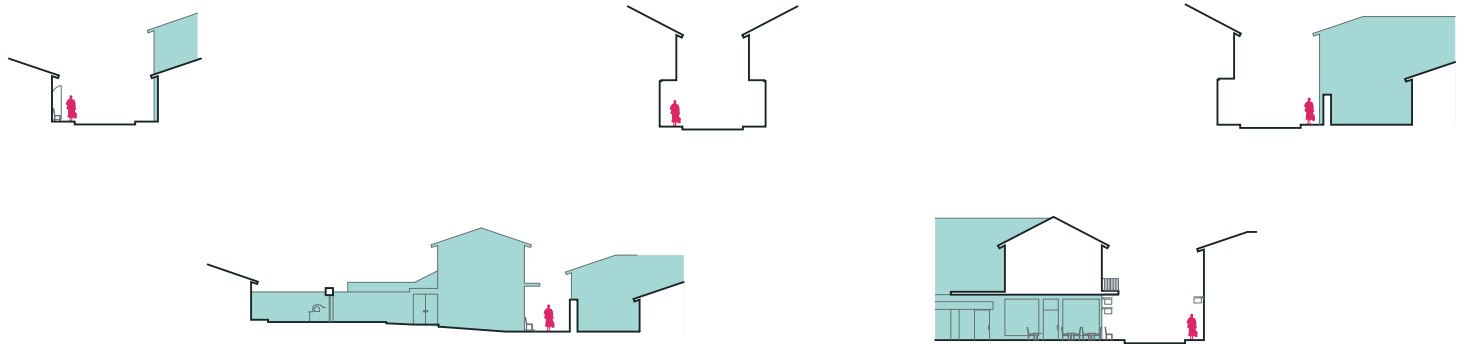
EXAMPLES OF URBAN - MIXED USE HOUSING UNITS IN CYPRUS



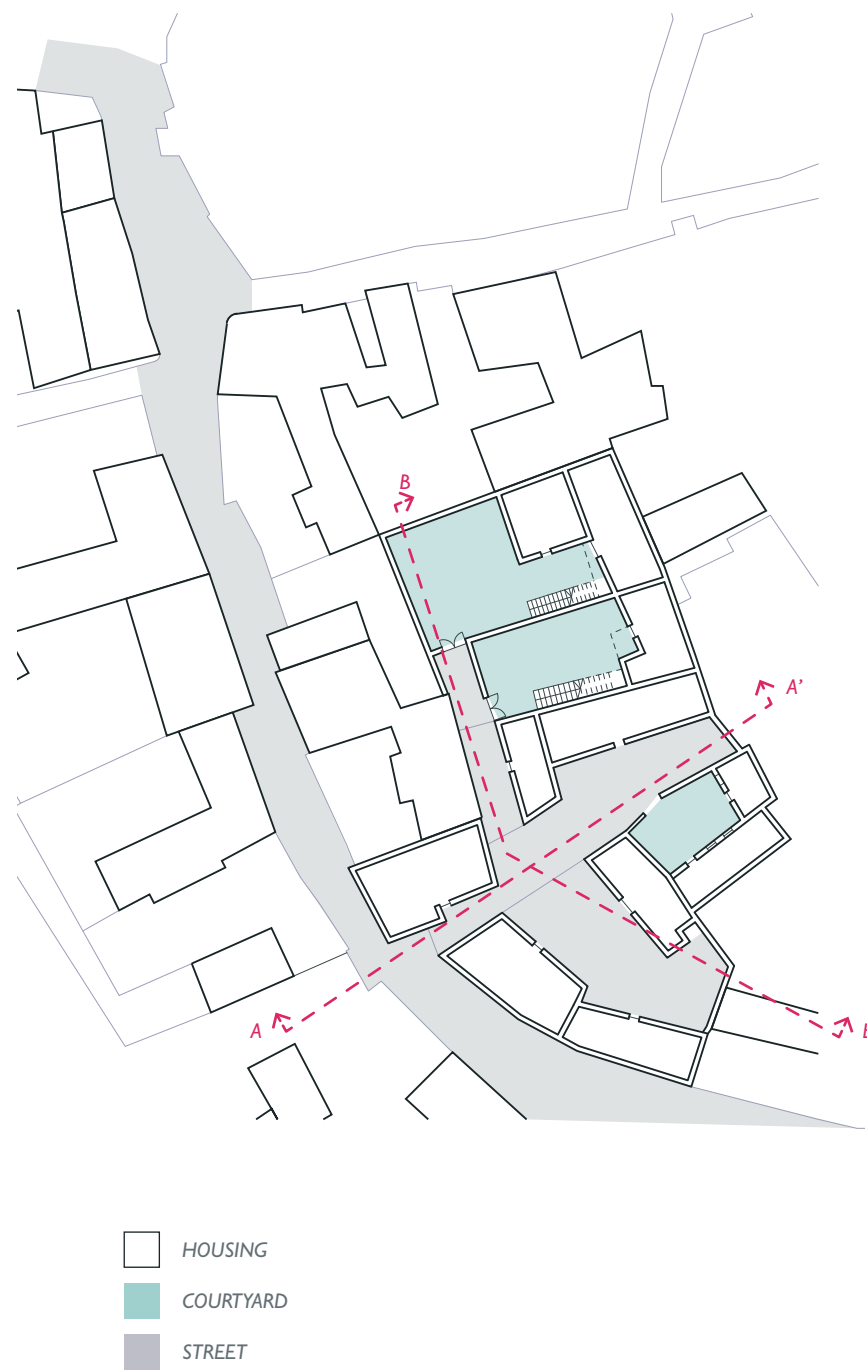
Typical housing examples found in the urban center of a Cypriot old town. Notice the courtyard which almost never loses its central role and the direct relationship with the street. From there all the other spaces, both main and secondary spaces surround it.

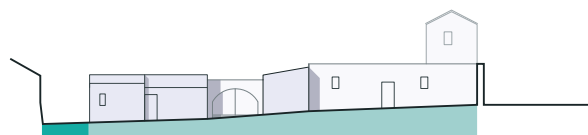
RELATIONSHIP TO THE STREET

There is a strong interactive relationship of the street and the built form, whether it is to connect with the courtyard, the shop or even to a parallel street. As demonstrated in the diagrams below, streets tend to be narrow, in order to create shade during hot summers, and the built fabric tends to be continuous.

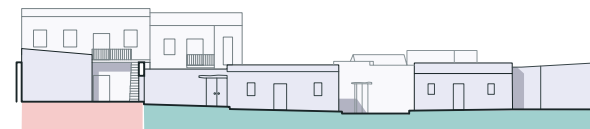


ARSOS VILLAGE, LIMASSOL DISTRICT - A LOCAL CASE STUDY





SECTION A-A'



SECTION B-B'

A GRADUAL TRANSITION FROM PUBLIC TO PRIVATE SPATIAL EXPERIENCE

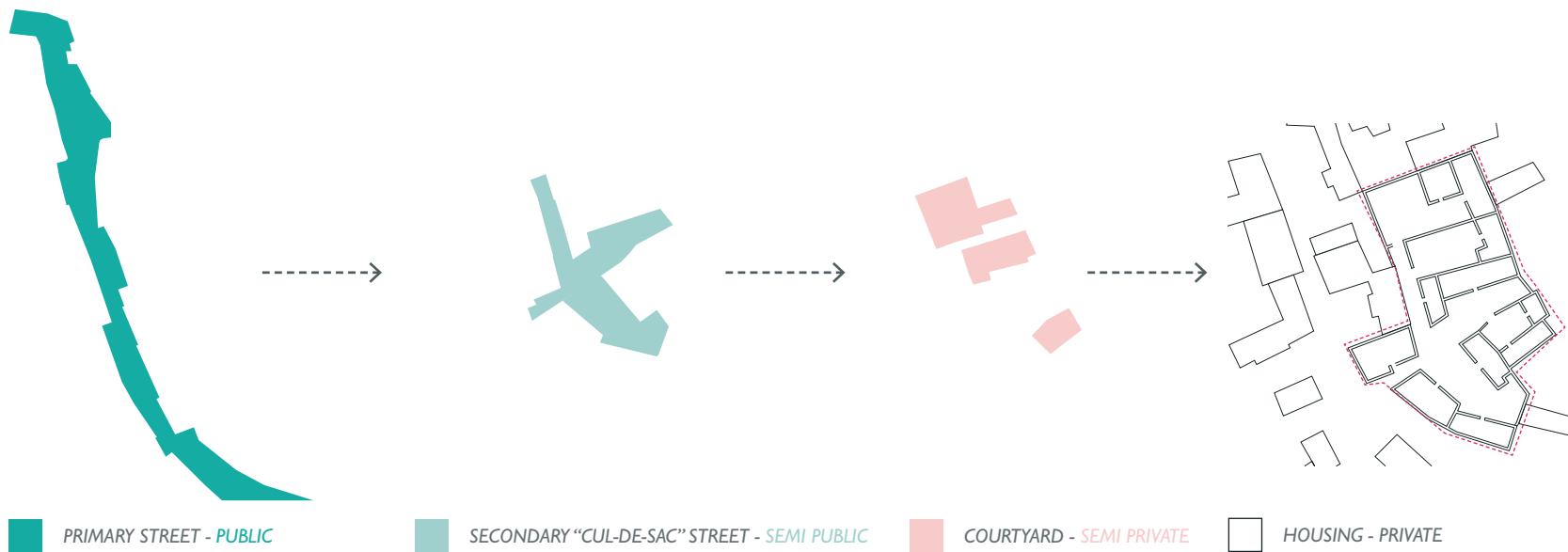


Figure 53. Arsos Village, Continuous built elements, direct relationship of courtyard entrance with the street, Photo courtesy: Author



Figure 54. Arsos Village, Typical entrance gates leading into the courtyard of the housing unit, Photo courtesy: Author

References

- Κυπριακή Παραδοσιακή Αρχιτεκτονική (Cypriot Traditional Architecture, direct translation), Naso Chrysohou, Nicosia 2014*
The Walled City of Nicosia, Typology Study, Danilo DEMI, Nicosia 1997
Η Κυπριακή Οικία (The Cypriot House, direct translation), G.H Papaharalampous, Zavalli Ltd 1968

THE LOCAL VERNACULAR,
EXAMPLES FROM VILLAGE AND URBAN HOUSING ARCHITECTURE



Figure 55. Typical Cypriot Courtyard, Photo courtesy: Finlay Yousef



Figure 56. The main entrance-gate that leads to the courtyard and then to the entrance of the house itself, Kilinia village, Photo courtesy: Author



Figure 57. A house restored into a community centre, Mesana village, Photo courtesy: Author



Figure 58. Woman working and observing the street, Lefkara village, Photo courtesy: Abraham Janovski



Figure 60. Housing Area in Old town Nicosia, Photo courtesy: Author



Figure 61. Ground floor Timber Workshop in Old town Nicosia, Photo courtesy: Author

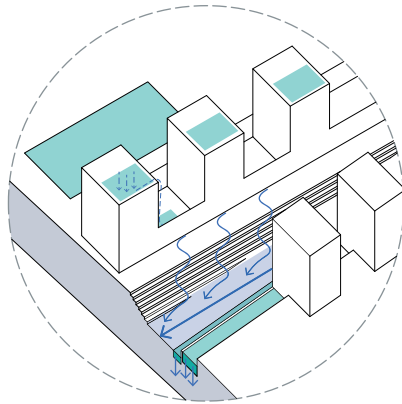


Figure 59. Housing in Old town Nicosia, Ottoman influence, Photo courtesy: Author

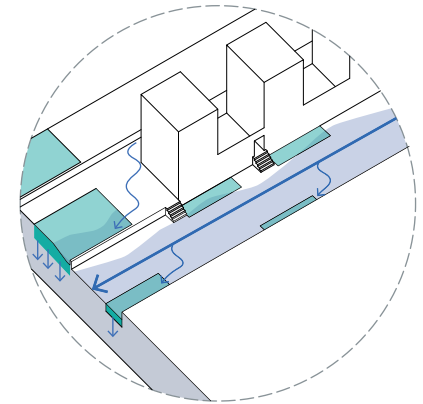
5.3 WATER MANAGEMENT OF THE RIVER



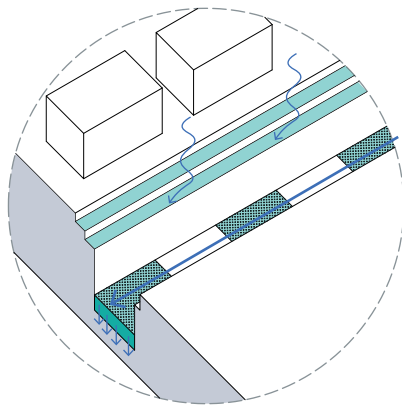
ACTIVE DESIGN DRIVEN SOLUTIONS



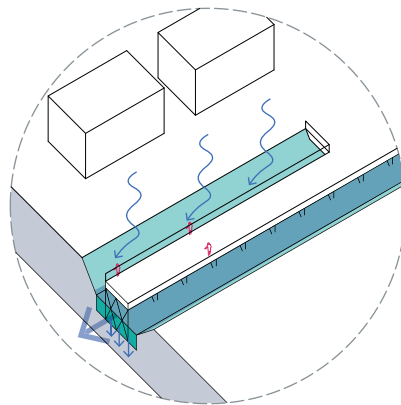
Raised alternative paths for access



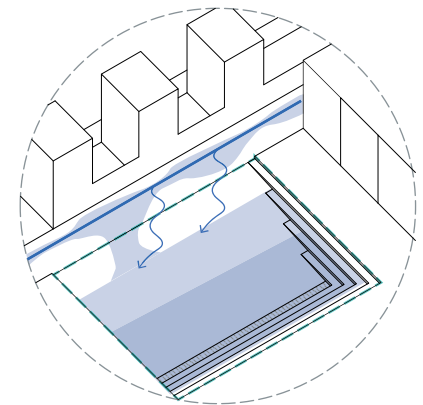
Water absorbing vegetation-beds



Urban Farming "steps" taking advantage of the water



Raised paths over vegetation beds



Water - gathering public spaces

Garillis river had this canal built for the main purpose of diverting a portion of the water descending from the mountains in case of heavy rain.fall.While its flooding might be a rare event within a year, it becomes the biggest concern for this project since housing and bussinesses are placed within the canal's banks.

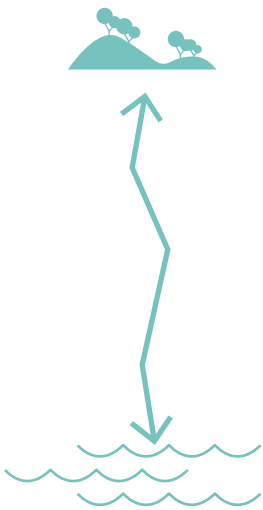
This project demonstrates general solutions to how make building within Garillis-river possible, while keeping them in mind throughout the design process. It approaches this the flooding issue from the scale of the district and zooming in to the built form itself.

It is an opportunity to extend its functional purpose from a simple drain river to an infrastructural solution for gathering and reusing water,since the resource is very limited in the island.

5.4 URBAN STRATEGY

ENVIRONMENTAL

Connect the mountain area in the North
with the Coast in the South



ACCESS

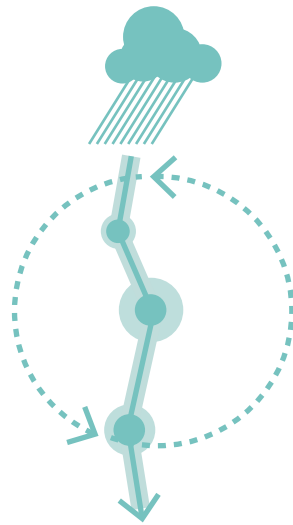
Limit private Vehicles - Access with
alternative, light transportation means



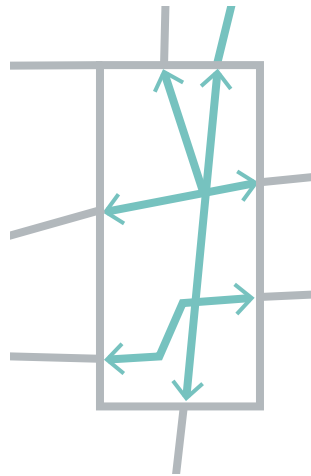
ACTIVATE

Activity Nodes - Christopher Alexander
points out that a good promenade requires
activity nodes inbetween

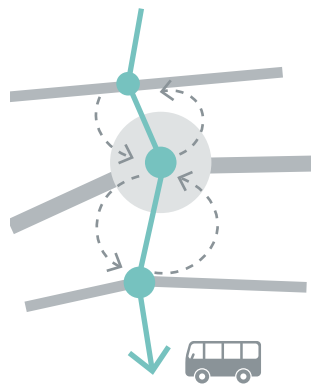




Water Management - Water in Cyprus is quite limited therefore it is crucial to establish systems for water gathering and recycling. Meanwhile, the drain river should retain in initial functional purpose of sending excess water towards the coast in case it happens.

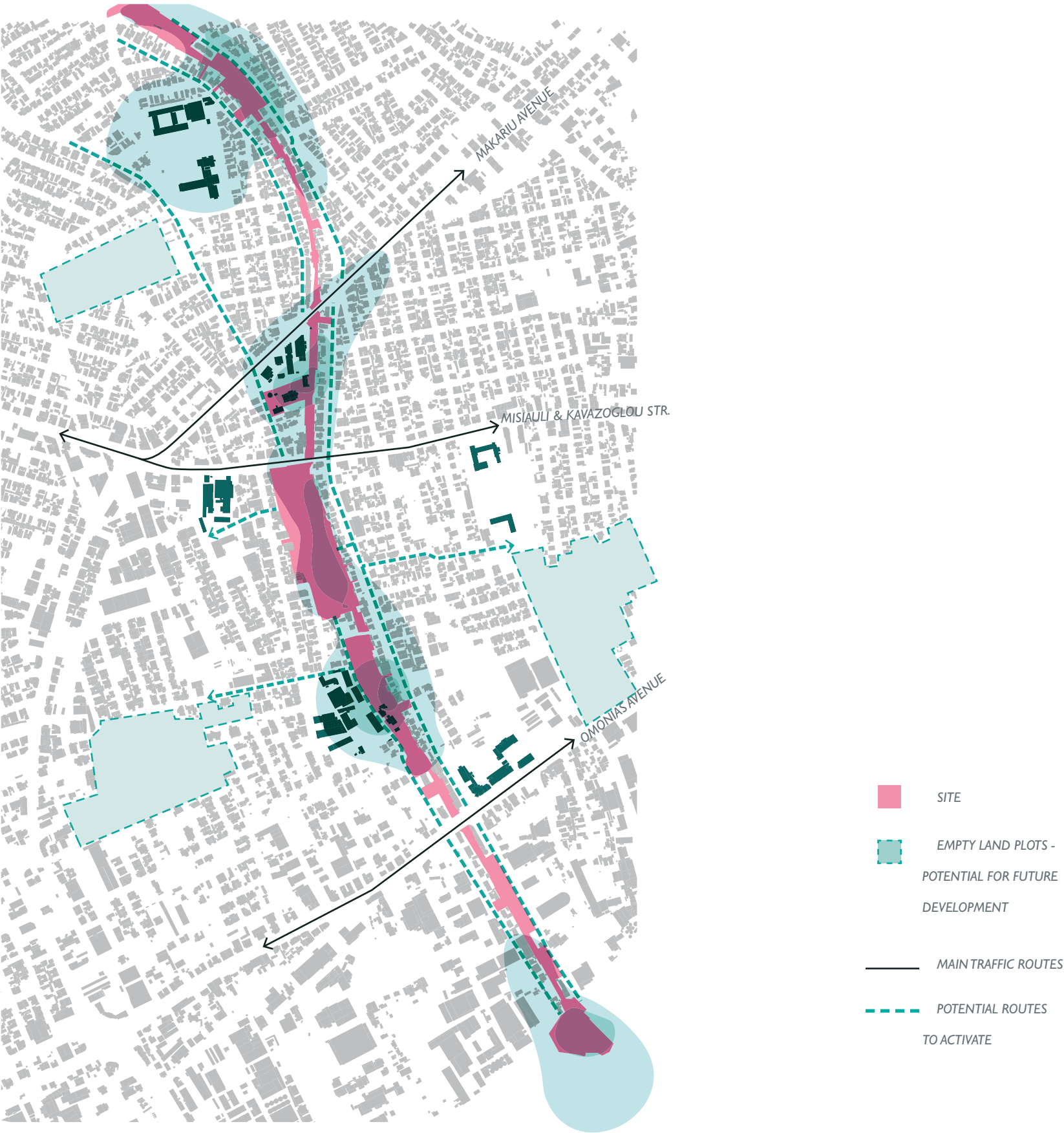


Links - Create connections with access routes to existing transportation infrastructure

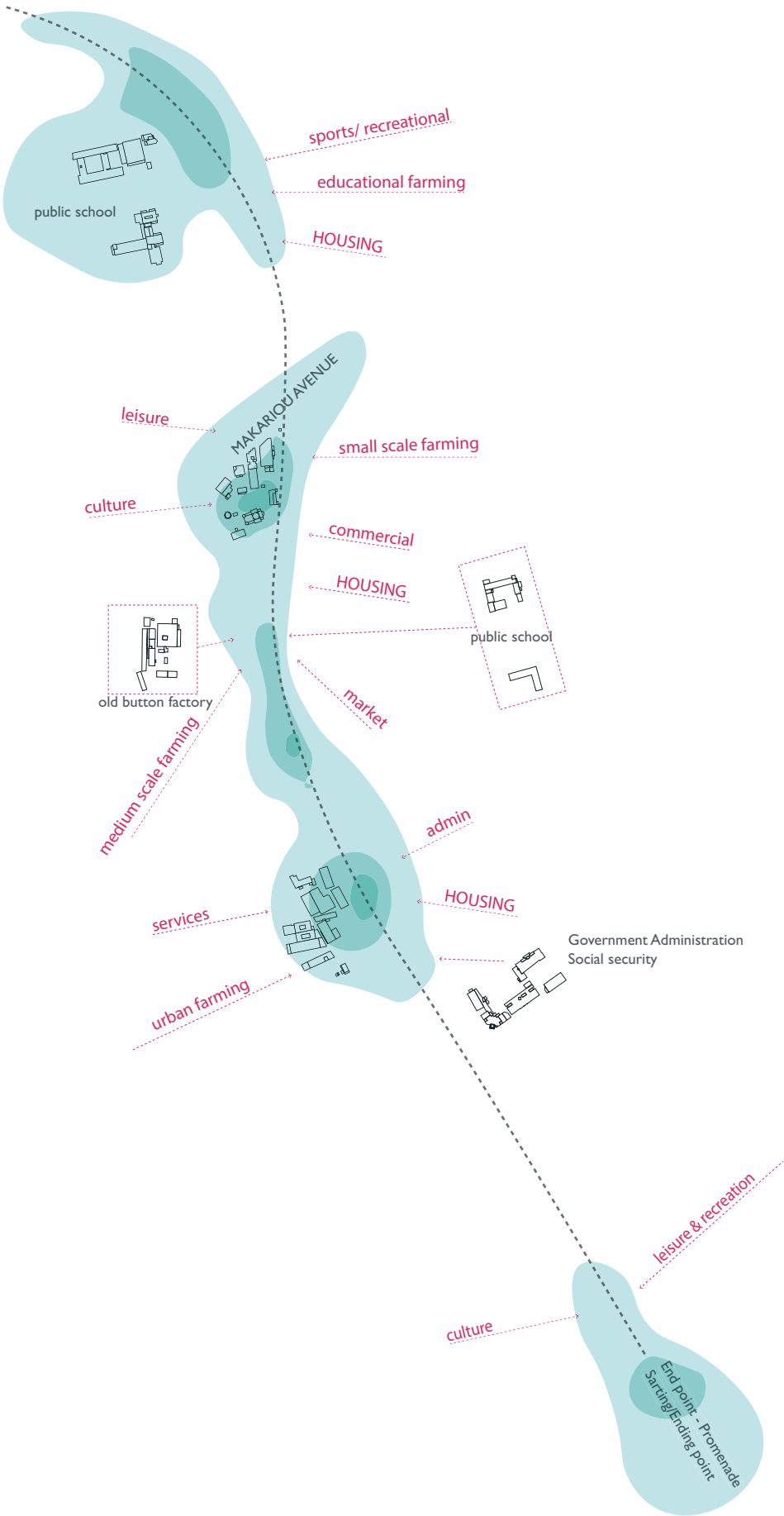


Public Transport - Nodes of Activity would allow concentration of people. It is an opportunity therefore to establish transport hubs providing access to and from the rest of the city.

GENERATING THE NODES OF ACTIVITY



PROGRAM DEVELOPMENT BASED ON
ACTIVITY NODES



5.5 PROGRAMATIC STORIES

When the sun rises in the western neighborhoods of Limassol, streets come to life while people begin to start their daily routines.



This time, Evi's bike broke down, but Jenny , her roommate, accompanies her until the bus stop just above the road. They attend classes together but it is too far to walk all the way to the CENTRE. Jenny drops her roommate off and continues her trip with her bike.



In her morning run at 6 o'clock, Maria encounters once again at the entrance of the park, Mr John who takes every morning his dogs for a walk. They cross their paths daily since Maria moved to the NEW HOUSES but Mr. John has lived in the neighborhood for 15 years now in an old apartment block right next to the park. Maria could not resist the sweet nature of the dogs which led to the introduction of these two people, and since then, they exchange a good morning daily before their day starts off.



It is gymnastics time for the class in the lyceum of St. John. The whole class sets out to go to the SPORTS CENTER next to the PARK. This time they will play basketball in the new premises while the younger students scream and shout with excitement in the indoor swimming pool right beside the court.



Little Eleni comes to visit her grandparents in the weekends from the capital. Her grandfather MR. Nikos has an eye on her as he sips his coffee with his friend in the new coffee bookshop. Little Eleni likes to explore the plants around the street when her grandfather shouts “ Dont eat that, is not ripe yet”



Veronica takes her kids to the garden. Its the period to collect the berries from the bush. She promised her kids they would make together some marmelade from these berries. This year the berries are less but she will manage to make a couple of dozen jars and sell them to this new pancake shop that has been buying jams from her since they opened.



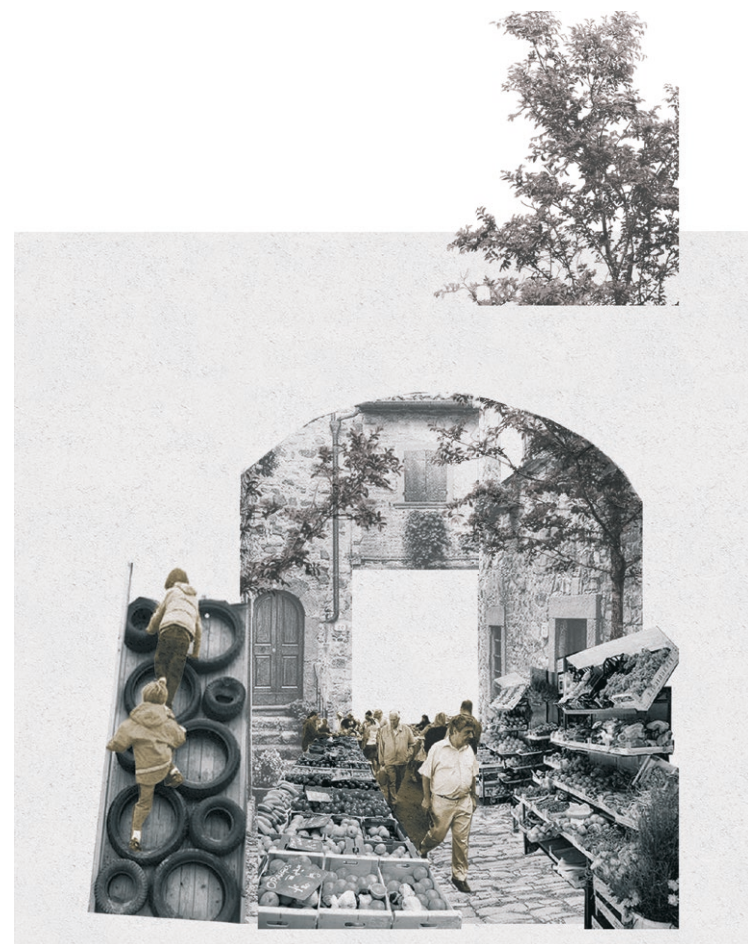
Mr.Andreas came from the city of Pafos but he has been working his whole life in the fields. He was invited by the Lab to show students how to harvest and maintain the olive trees.This year they have couple of foreign exchange students who are studying the chemical properties of olive oil therefore it was a valuable lesson for them to follow the expertise of Mr.Andreas.They been collecting the olives now for three days while Mr.Andreas demonstrates them which olives are suitable for harvesting.



Giannis was unemployed two years ago. He found this course in the Culture Lab which he followed for a year. It was a wood craftsmanship course. He is renting his flat in exchange for his services as a wood craftsman. He has been working for the new outdoor benches that are to be installed end of this year close to the completion of the new housing block. He needs to finish cutting the wood planks by afternoon since his neighbour starts shouting about the noise.



Mr. Nicolas promised his neighbour to watch her son for a few hours she needs to go away. He is only 5 years old. Mr. Nicolas is retired and is in his late 70's. He is an artist and has his studio on the ground floor. He moved to Limassol from his small village to be closer with his family. He still paints and never leaves his studio so he was more than happy to take care of his neighbour's son. The boy joined the boys of the neighborhood in a football match on the street just outside Mr. Nicholas's shop. He is not worried. He can see him and there are no cars in this street.



Its late summer and its the season for the red grapes. Mrs Anna has promised me a kilo of those grapes that she grows in her block. She said she would attempt to make the local delicacy of "Palouze" from her grapes. She invited some of her friends from the village to show her how its made, since they know best how to do it in the wine villages in Limassol. I hope I can find her in the Farmers market in the morning otherwise ill pass from her house later in the afternoon.



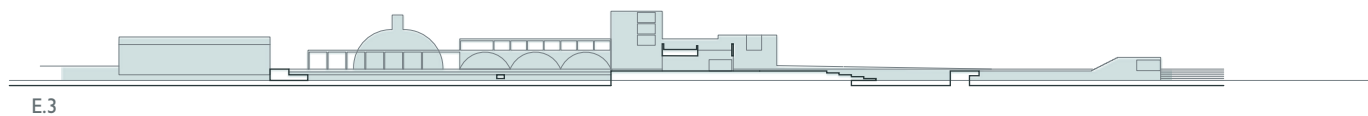
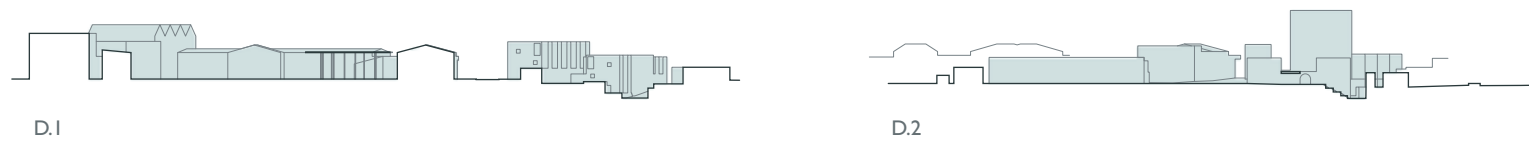
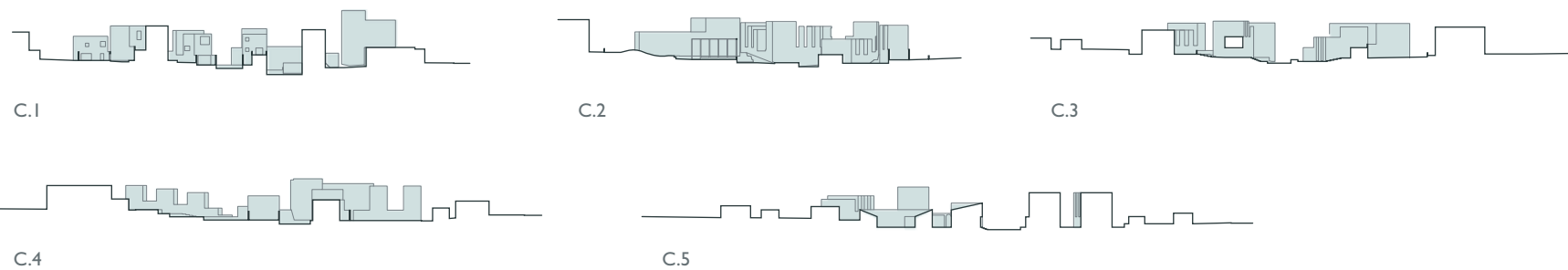
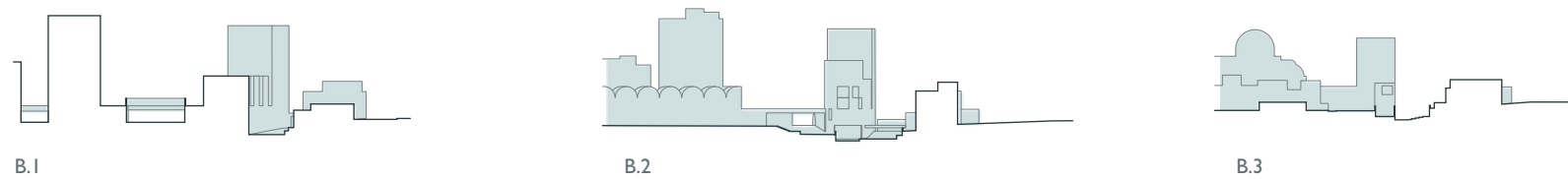
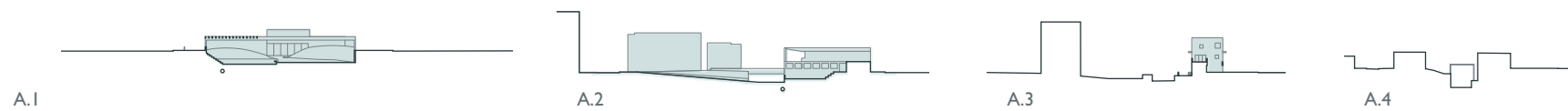
Sarah has agreed to meet with her group in the COAST LIB. They are about to discuss about an ongoing project they are going to build in the CULTURE LAB. They are going to present it in front of the classroom tomorrow so they need to get together to organize themselves. They like to meet in the library because of the relaxing atmosphere and the endless sea views. Sarah cant find them in the LIBRARY though, they probably are in the coffee shop downstairs.

6. DESIGN PROPOSAL



0 100m 500m 1000m

scale - 1:10 000



scale - 1:2000

PROGRAM



CONNECTIONS



- RAMP - BIKE ACCESS
- STAIR ACCESS
- EXISTING MAIN TRAFFIC ROUTE
- UNDERPASS - BRIDGE



0 100 m 250m 500m

scale - 1:5000





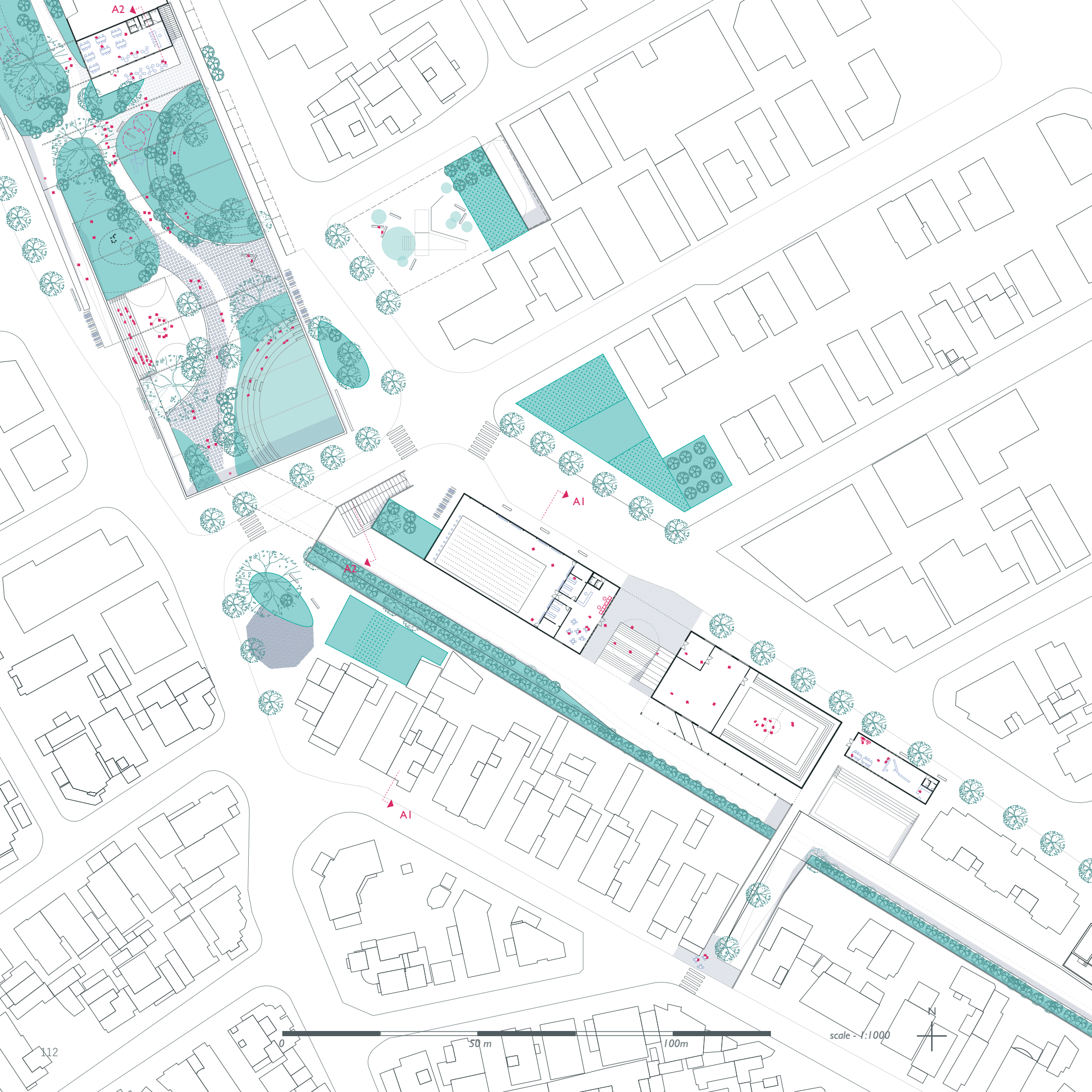
APOSTLES ANDREAS RECREATIONAL PARK

The Apostles Andreas Recreational Park in the northern part of the pedestrianized river consists of the area's Urban Forest, Open-air Amphitheatre and the Indoor Swimming Pool and Sport Facilities further south.

Its subtle intervention creates a lowered, walled space, reducing the noise and distraction from the traffic. Trees and vegetation will be tall in order to form a canopy of shade, necessary for the warm summers.

The park's close proximity to a public school makes it possible to be used for teaching s classes and gymnastics in their premises while other times of the day, locals can benefit from the facilities provided.

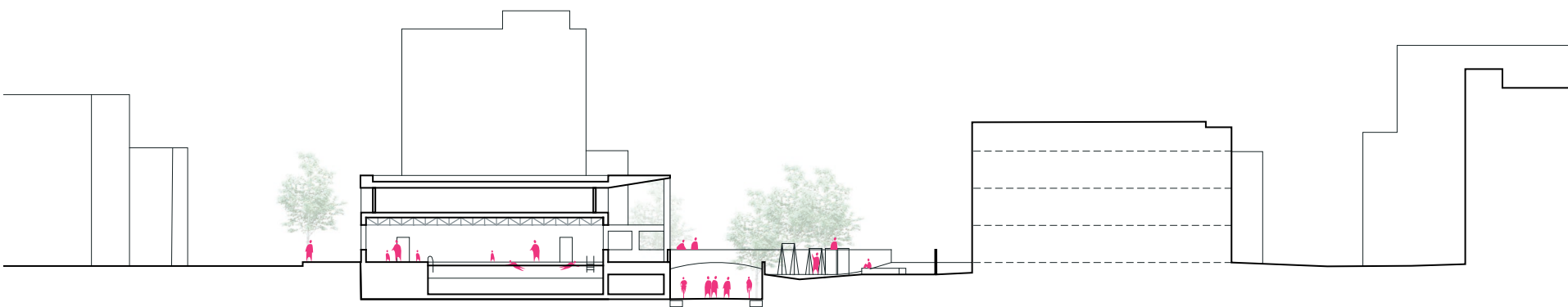
This intervention behaves like an entrance from wild nature towards an urban environment therefore the design proposes a combination of bold - geometric and flowing - organic shapes.



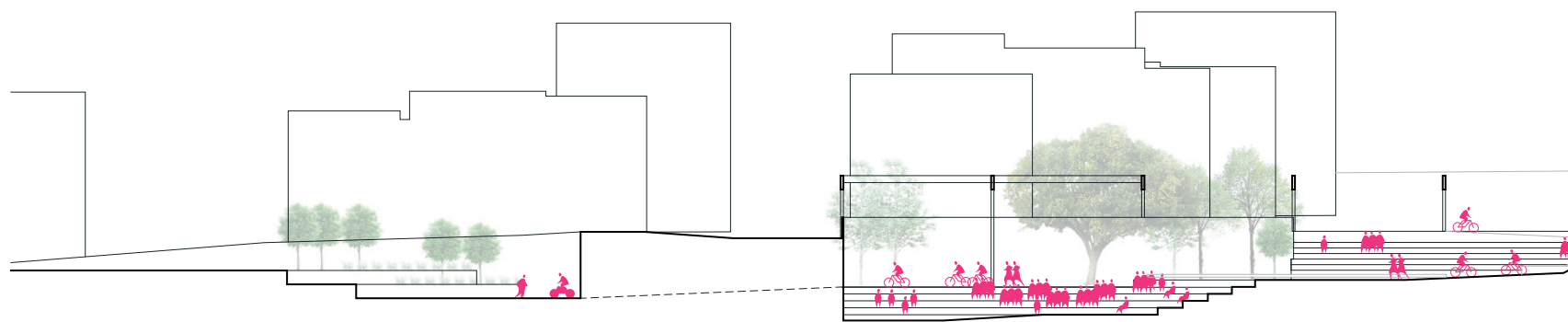
A2

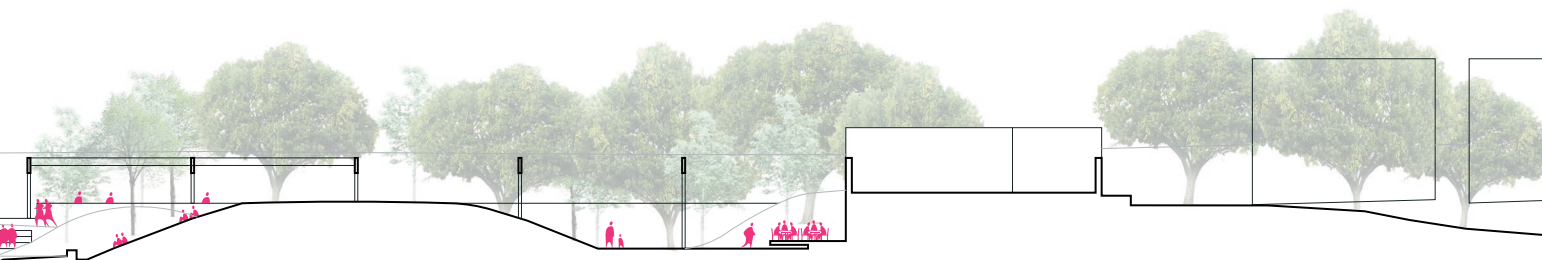
A1

A1



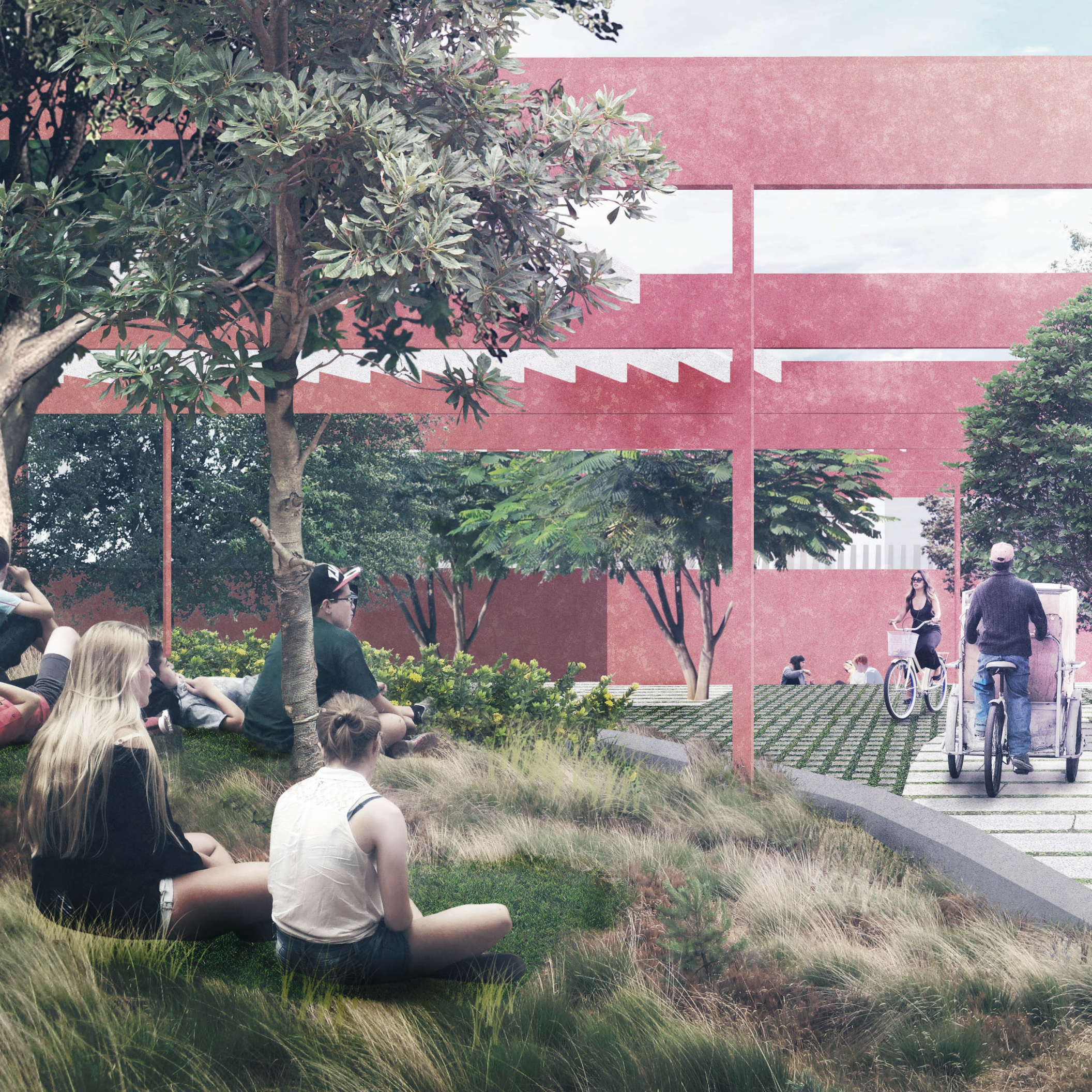
SECTION - A I scale - 1:500





SECTION - A2

scale - 1:500







ST JOGN'S SQUARE MARKET

Named after the existing church, the proposal opens up the gated church and creates a multileveled square that connects the riverbed with the level of the church. Ramps and staircases join together to create access to the various facilities.

The nature of this proposal takes the form of a “traditional” square where the church becomes the monument to be revealed while surrounded by shops, restaurants, markets and small businesses. The already busy ring road Makariu Avenue encourages generating functions like a market hall with restaurants, offices and small businesses. From the square, a pedestrian bridge is extended above the riverbed to connect the eastern side. With mainly commercial uses and few housing units, the proposal keeps the existing apartment block towers and creates a lower building that turns into the square, defining clearly the street edges and the access points. Since a major landscaping construction will be necessary, the existing underground parking spaces can be extended to accommodate more vehicles. However few parking areas will remain on the ground level.

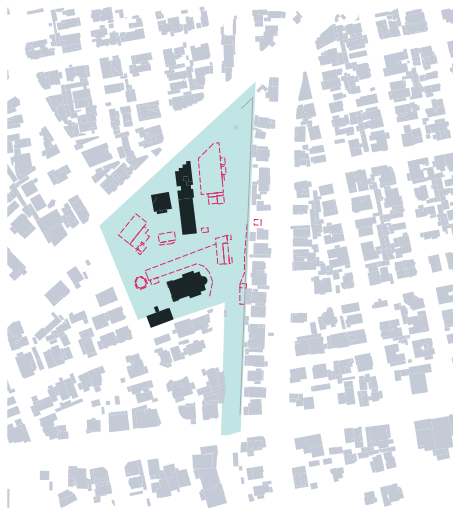


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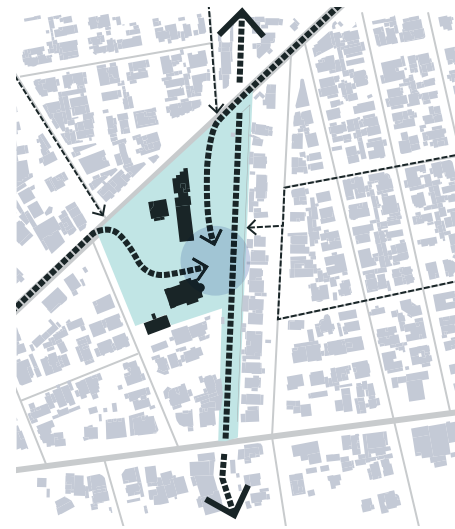
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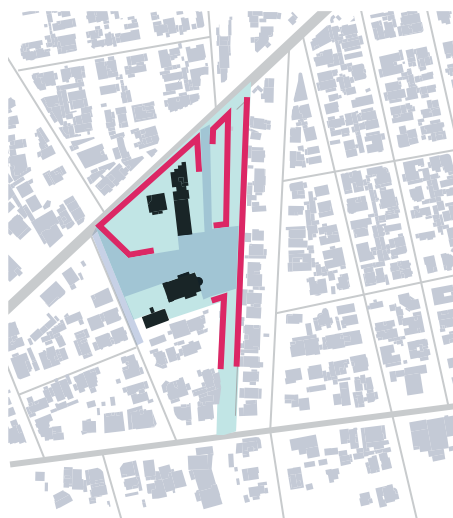
Existin Network Infrastructure - Roads, River



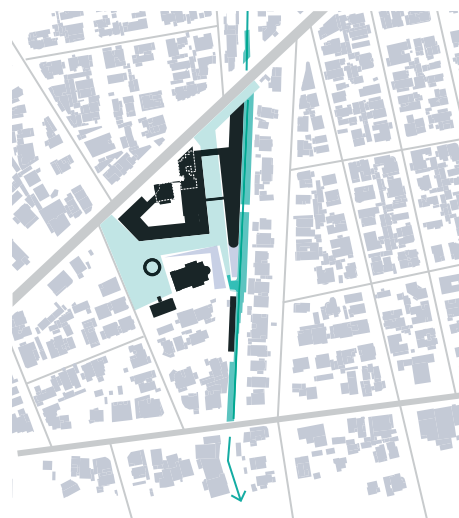
Buildings to Demolish



Main Access Routes



Shaping the street Edge



Spatial Hierarchy



SECTION - B1 scale - 1:500





THE CENTRE OF WESTERN NEIGHBOURHOODS

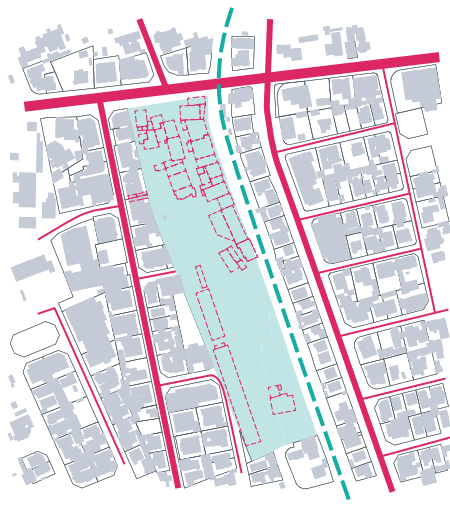
This proposal is where the majority of housing units will exist. Small in scale and densely built in order to form narrow streets and pockets of activities. A local square and a park sit in the middle of this housing complex with connections to the existing urban fabric in various points, both with ramps and stepped streets. Its multiple levels make it possible to circulate the area if heavy rainfall fills the square area with water.

The housing is small but flexible, allowing the inhabitants to choose whether they want to give a different function to its ground floor. They have been largely inspired by the local vernacular as well as Peter Barber's social housing schemes. The riverbed acts as the most active and public street that connects directly with the square and the park.

The semi-private streets tend to be narrower and connect with courtyards that inhabitants may grow food in. The housing formation despite its small scale creates almost an enclosed courtyard city block where the existing houses of the area complete the circle.

The area contains also few administrative and office buildings as well as a local small scale clinic for the residents in the area, attached with a public parking.





Existin Network Infrastructure - Roads, River
Buildings to Demolish



Main Access Routes - Formation of city blocks



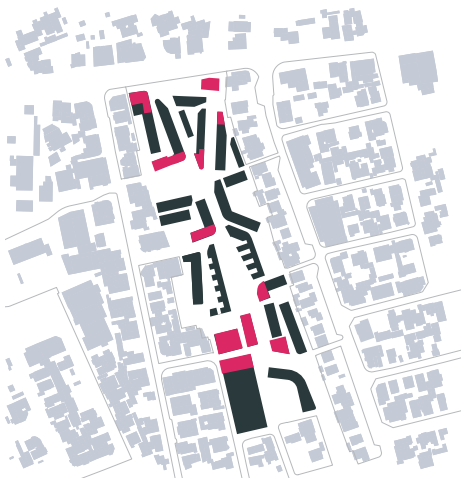
Shaping the street Edge



Spatial Hierarchy



Parks and Urban Farming Courtyards

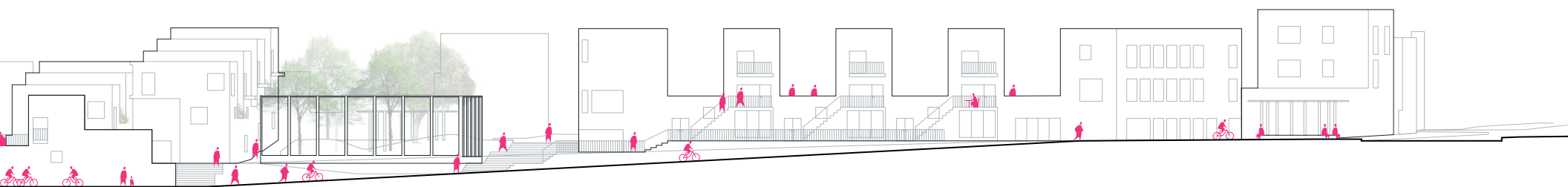


Commercial, Office, Admin and Clinic









SECTION - C I scale - 1:500



SECTION - C 2 scale - 1:500









CENTRE OF EDUCATION AND CULTURE

The centre is mainly consisted of existing warehouse buildings, currently used for logistic purposes. While still in use, the concept to intervene is based on reducing traffic from heavy trucks to enter so close to the city centre. Therefore their big spatial qualities allow to develop functions like theatre, lecture rooms, co-work spaces etc.

The aim is to create a research and educational hub combined with culture, exhibition spaces and a theatre which can also be used as lecture room. Housing is placed closer to the river in multiple levels, gradually connecting the lower level of the riverbed. Main connection becomes the park itself which connects the centre's main entrance as well as the riverbed.

Sports facilities both indoors and outdoors invite people mostly from the southern part of the neighbourhoods, giving space for children to play away from the traffic.

The centre becomes the teaching place for people who want to learn about urban farming, explore possibly new technologies through research, or learn a new craftsmanship in the facility's workshops.



D1

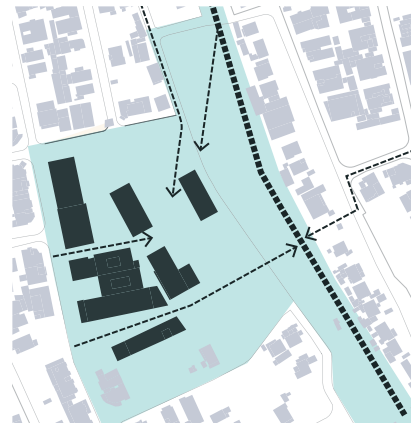
D2

D1





*Existin Network Infrastructure - Roads, River
Buildings to Demolish*



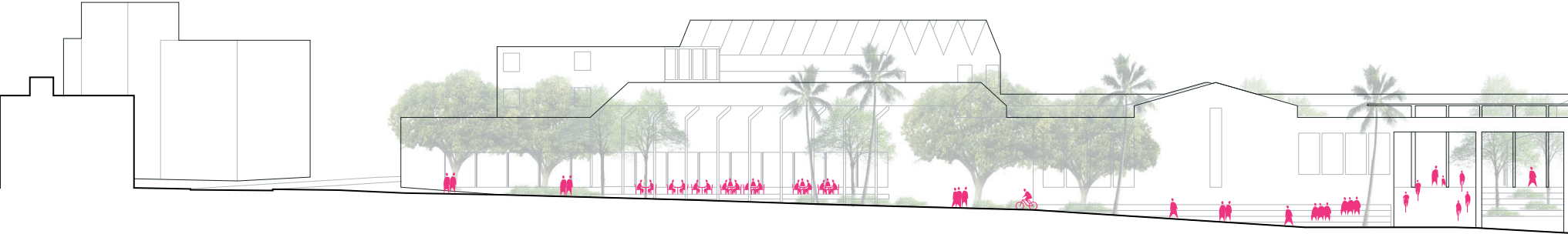
Main Access Routes



Shaping the street Edge



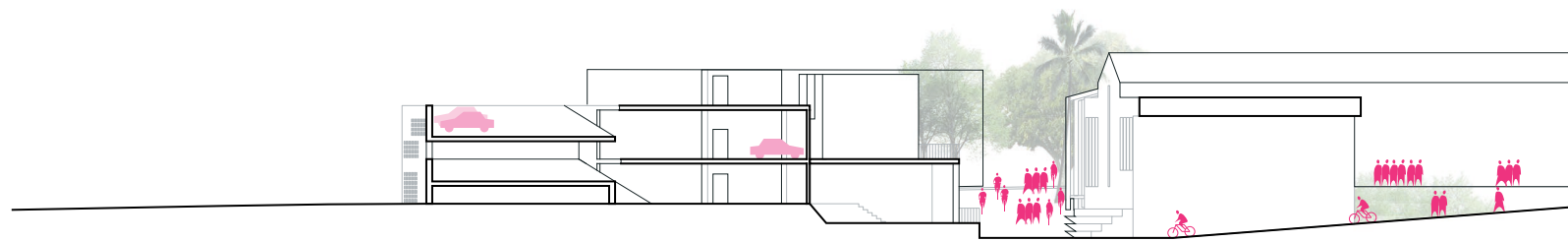
Spatial Hierarchy

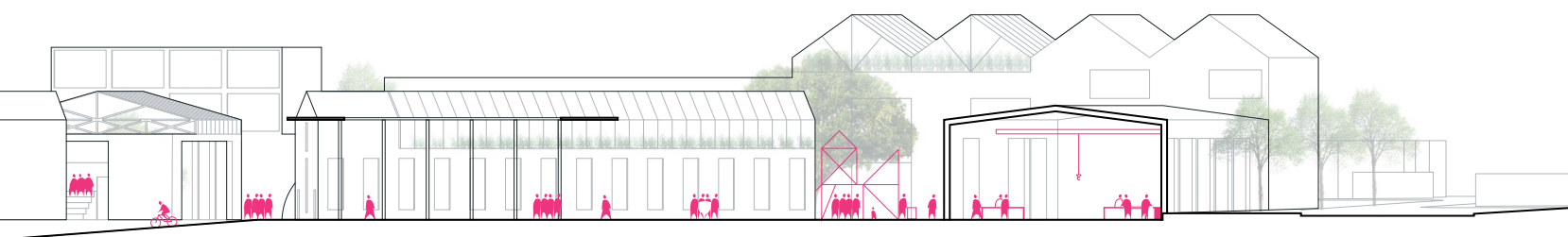




SECTION - D1

scale - 1:500





SECTION - D2

scale - 1:500







KARNAGIO PUBLIC LIBRARY

The Karnagio Public Library takes its name from the existin name of the area. It is the finishing point of the Garillis “promenade” The library itself takes the shape of a ramp where people can go on its rooftop and enjoy uninterrupted views towards the sea. Due to the future developments that Limassol will undergo in its western, old industrial area, this building comes to maximize its public character by making a public library.

Along the coast, water sports facilities, a fish market a small harbour with boat-maintenance facilities and leisure facilities extend between east and west, creating an urban seafront promenade. The small square of Karnagio holds functions like tourist information, rentals and small hotels due to the character of the area.







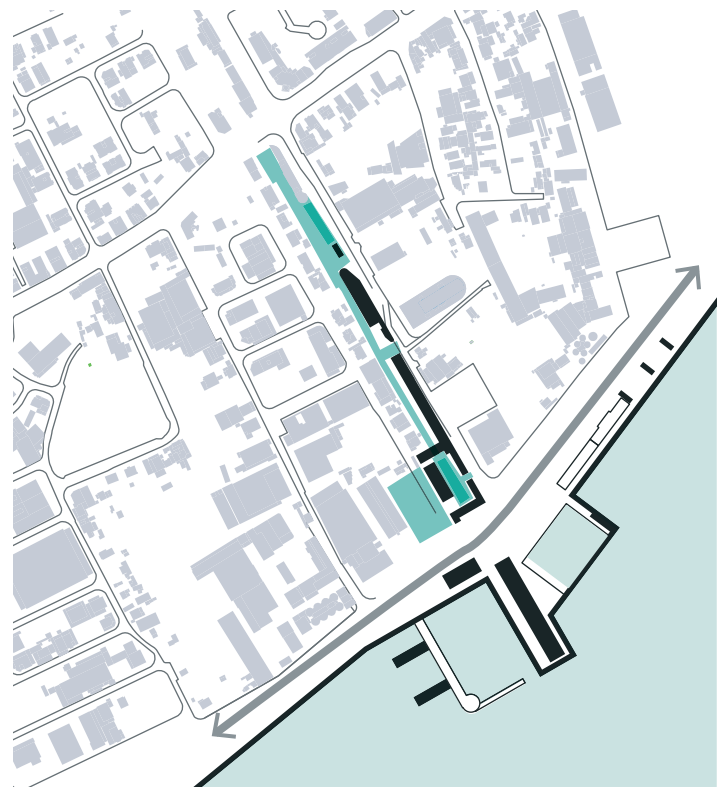
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Buildings to Demolish



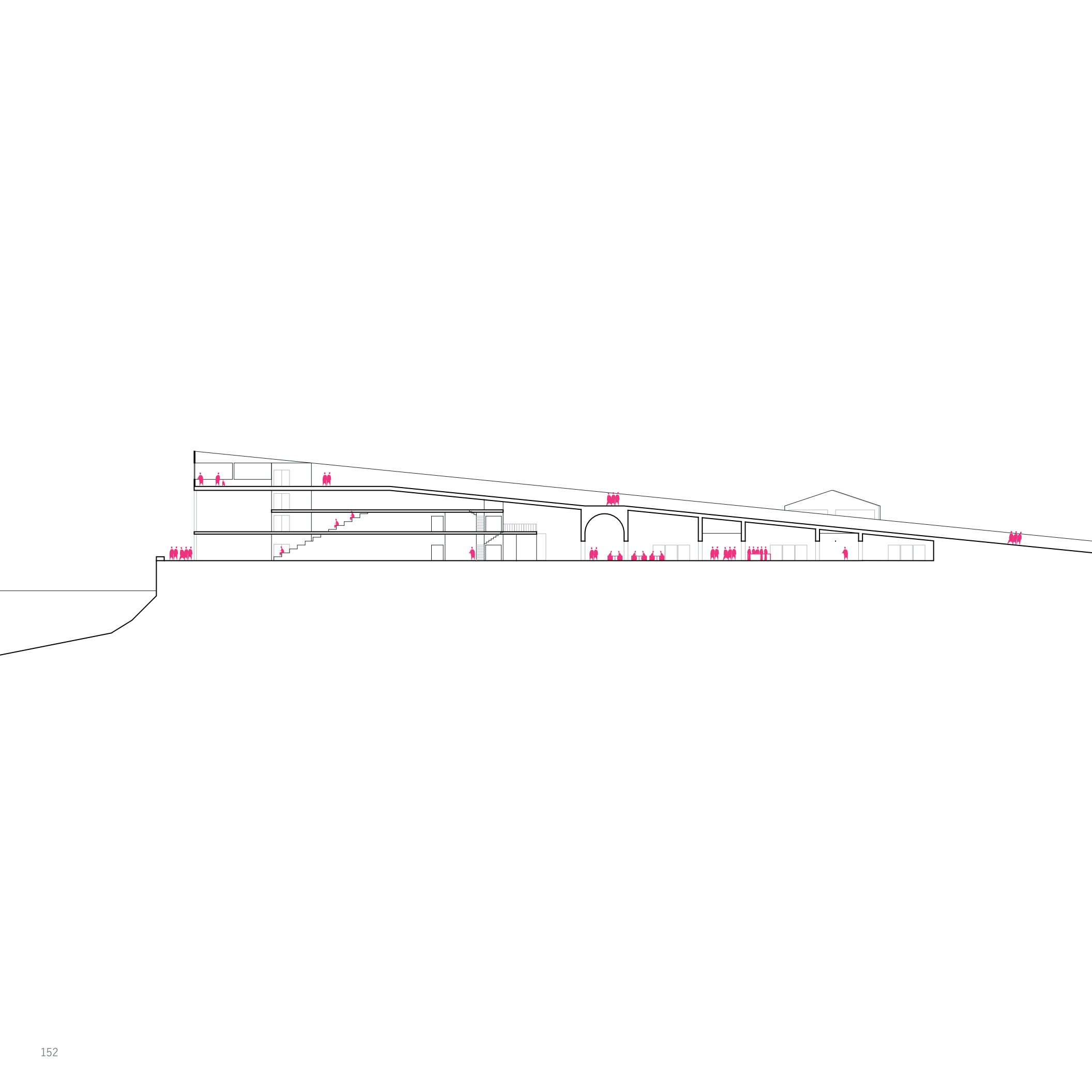
Main Access Routes



Shaping the Street and the Coast Edge



Spatial Hierarchy









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Master's Diploma Research Project

Stefanos Theodorou



